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NOVEMBER 1981

Pension World

The Magazine for Plan Sponsors and Investment Managers/A Publication of Communication Channels, Inc.

1981 PENSION WORLD Employee Benefits Awards

ROBERT TILOVE JOHN N. ERLENBORN

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WASHINGTON DC 20014

Mortgage-Backed Securities: Producing Predictable Income

Investment of Profit-Sharing Plans

6th Annual Directory of Master & Directed Trust Services

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November 1981
Volume 17 Number 11

The Magazine for Plan Sponsors and Investment Managers / A Publication of Communication Channels, Inc.

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1981 *Pension World* Employee Benefits Awards 13
Pension World recognizes five outstanding persons in the pension arena, acknowledging their achievements in benefits administration, benefits consultation, investments, public policy, and lifetime career achievement.

What sets profit-sharing funds apart? by Marie Powers 21
New profit-sharing options may dramatically alter the traditional investment structure of these funds, according to *Pension World*'s study of 15 of the largest profit-sharing funds in the U.S.

Unfunded liabilities: how severe are they? by Richard C. Keating 27
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6th Annual Directory of Master and Directed Trust Services 47
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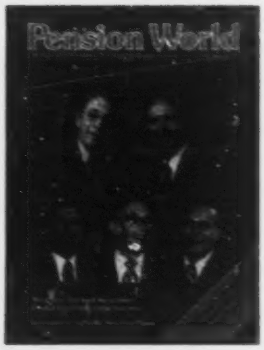

Cover: *Pension World* salutes five men who have made outstanding contributions in five specialized areas of the pension industry. Our tribute to these men and their accomplishments begins on page 13.

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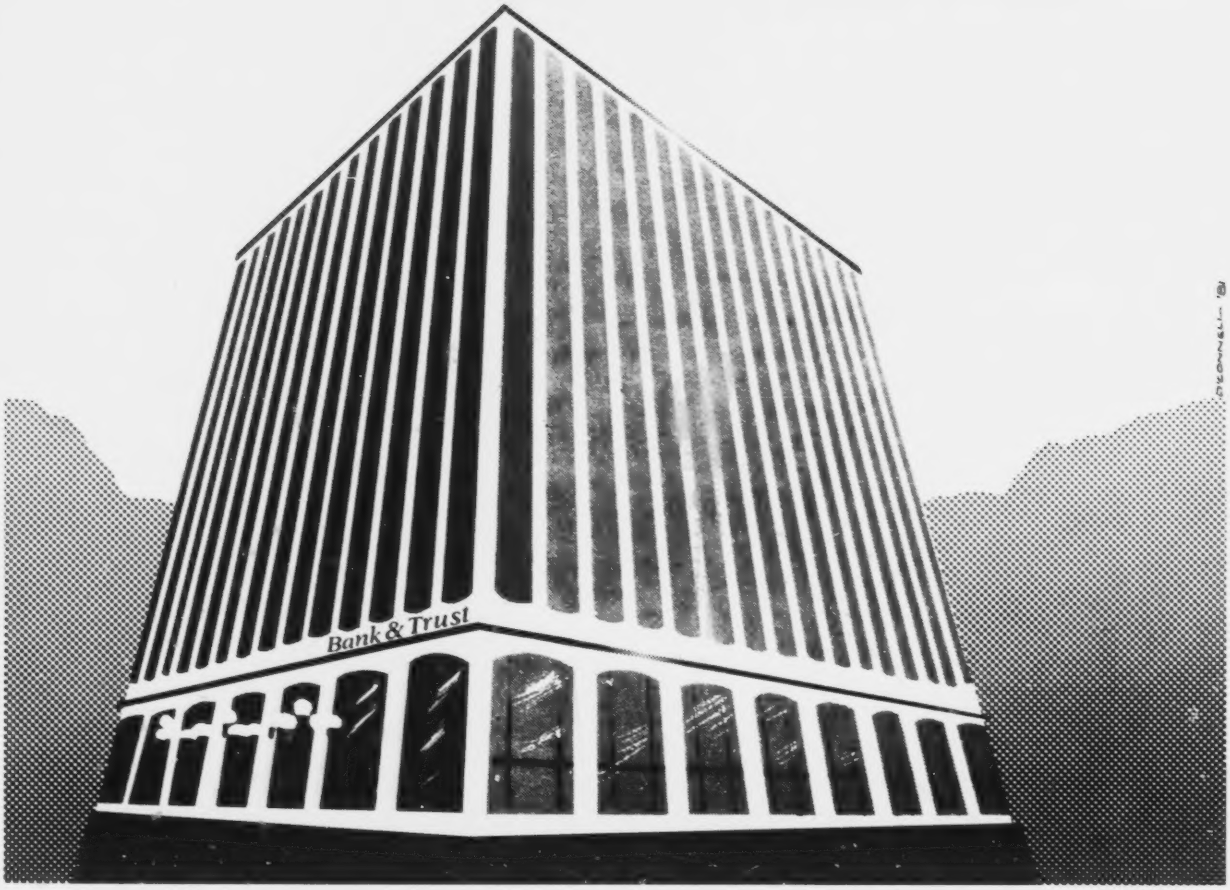

6th Annual Directory of Master and Directed Trust Services

Master Trust continues to be defined in individual ways by the banks and trust companies offering this service. A technical definition, according to several authorities in the corporate trust industry, is a trust in which *multiple* plans of the same company or control share investment experience under *one trust document*. In working terms, however, some of the definitions used for master trust include: 1) an arrangement under one trust agreement that includes multiple money managers, one of which may or may not be the trustee; 2) a pooling of one sponsor's assets, which may include multiple managers and *one* or more plans, under one trust document; or 3) a pooling of directed trusts.

Similarly, several different definitions are given to the term *Directed Trust*. The general definition is a trust under which the trustee has less than full managerial authority of the plan sponsor's assets. However, the term is often used synonymously with "directed portfolio," in which a manager has the authority to direct only those investments within the particular portion of assets under his direct control; and it is sometimes associated with "general trust," in which a separate trust agreement is written for that portion of assets under the manager's control.

Recognizing this, figures gleaned in the following survey are not always comparable, although *Pension World* has taken every precaution to present these data in their most accurate form. All information in the directory was provided by the banks and trust companies listed.

The list of firms offering master and directed trusts has been expanded to 84 from 71 last year; however, we recognize that it is not exhaustive. We appreciate the efforts of those who completed and returned the questionnaires and hope that each year's directory will continue to be more complete and inclusive.

<table>
<tr><th>Name and Address of Bank</th><th>Number of Separate Master Trust Clients</th><th>Number of Directed Trust Clients</th><th>Master Trust Assets (in millions)</th><th>Directed Trust Assets (in millions)</th><th>Custodial Employee Benefit Assets (in millions)</th><th>Total Employee Benefit Assets (in millions)</th></tr>
<tr><td rowspan="2">American Trust and Savings Bank
Town Clock Plaza
Dubuque, IA 52001
Contact: James P. Cooney/ T.O.
319/582-1841</td><td>45*</td><td>57</td><td colspan="2">$30.4 (combined)*</td><td>$3.0</td><td>$33.4</td></tr>
<tr><td colspan="6">Services Provided: Performance measurement, portfolio analysis, portfolio review, participant recordkeeping, ERISA disclosure assistance, benefit disbursement
*Master/prototype plan.</td></tr>
<tr><td rowspan="2">American Trust Co. of Hawaii, Inc.
Suite 1203
841 Bishop Street
Honolulu, HI 96813
Contact: Robert R. Midkiff/ President
808/521-6543</td><td>3</td><td>1,519</td><td>$58.9</td><td>$316.3</td><td>$336.3</td><td>$336.3</td></tr>
<tr><td colspan="6">Services Provided: Performance measurement, portfolio review, participant recordkeeping, ERISA disclosure assistance, benefit disbursement</td></tr>
<tr><td rowspan="2">AmeriTrust Co.
900 Euclid Avenue
Cleveland, OH 44101
Contact: Robert C. Gebauer/ V.P.
216/687-5750</td><td>18</td><td>13</td><td>$1,000</td><td>$200</td><td>$100</td><td>$3,000</td></tr>
<tr><td colspan="6">Services Provided: Performance measurement, portfolio analysis, portfolio review, participant recordkeeping, ERISA disclosure assistance, benefit disbursement, index fund, asset allocation</td></tr>
<tr><td rowspan="2">Atlantic National Bank of Florida
General Mail Center
Jacksonville, FL 32231
Contact: E. Jackson Smith/ V.P. & S.T.O.
904/632-6565</td><td>0</td><td>21</td><td>0</td><td>$241</td><td>$25.3</td><td>$297</td></tr>
<tr><td colspan="6">Services Provided: Performance measurement, portfolio analysis, portfolio review, participant recordkeeping, ERISA disclosure assistance, benefit disbursement</td></tr>
<tr><td rowspan="2">Bank of America NT & SA
555 California Street
San Francisco, CA 94104
Contact: John P. Sheehy/ S.V.P.
415/622-6076</td><td>23</td><td>2,000</td><td>$7,500</td><td>$6,500</td><td>$1,000</td><td>$15,000</td></tr>
<tr><td colspan="6">Services Provided: Performance measurement, participant recordkeeping, ERISA disclosure assistance, benefit disbursement, securities lending, international investment management, real estate investment management, international custody and trusts, investment management/U.S. securities</td></tr>
<tr><td rowspan="2">Bank of New York
48 Wall Street
New York, NY 10015
Contact: Donald K. Slavin/V.P.
212/530-1353</td><td>26</td><td>14</td><td>$1,775</td><td>$238</td><td>included under master and directed trust figures</td><td>$4,000</td></tr>
<tr><td colspan="6">Services Provided: Performance measurement, portfolio analysis, portfolio review, ERISA disclosure assistance, benefit disbursement, asset allocation model, investment strategy overview, international fixed-income management, TUCS universe ranking, securities lending, multiple manager evaluation, option management, cash management and income projection, master trust plan allocation reporting, principal stabilization fund, emerging technology fund</td></tr>
</table>

Number of Separate Portfolios Maintained	Average Number of Accounts per Account Supervisor	Average Number of Accounts per Investment Mgr. Contact	Accounting System Utilized	Fail Float Credit	Short-Term Instruments Used	Date Interest on Short-Term Fund Credited	Timeliness of Reporting Package
102	34	34	Contractual settlement date	Not reported	Federated cash management	Cash basis	Monthly

Crediting Dividend and Interest Policy: Cash basis.
Fee Structure: Based on combination of asset value and individual services performed.

1,519	170	0	Contractual settlement date	No	Internal short-term common trust fund	7th of following month	10th of following month

Crediting Dividend and Interest Policy: Cash to account on pay date plus two.
Fee Structure: Based on combination of asset value and individual services performed.

90	7	25	Contractual settlement date, actual delivery date	Yes	STIF, variable demand notes, CD's, T-bills, commercial paper	Month-end	3-5 days after month-end

Crediting Dividend and Interest Policy: Income anticipation system utilizing payable date.
Fee Structure: Based on combination of asset value and individual services performed.

21	21	7	Actual delivery date	No	Money market funds, T-bills	First of each month	Not reported

Crediting Dividend and Interest Policy: Cash credit within 5 days.
Fee Structure: Based on combination of asset value and individual services performed.

2,000+	3-150*	10	Trade date full accrual, contractual settlement date with pending adjustment, contractual settlement date, actual delivery date	Not reported	STIF, U.S. government securities, commercial paper, bankers acceptances	Calculated daily, paid first business day of month	Per client specifications

Crediting Dividend and Interest Policy: Posted to account and invested on payable date.
Fee Structure: Based on combination of asset value and individual services performed.
*Based on complexity.

200	10	10	Flexible system; reports generated on trade date or delivery date, as required	Yes	Master notes, short-term liquid asset fund	Payable date	5-15 business days

Crediting Dividend and Interest Policy: Cash on payable date.
Fee Structure: Based on combination of asset value, individual services performed, and transaction volume.

<table>
<tr><th>Name and Address of Bank</th><th>Number of Separate Master Trust Clients</th><th>Number of Directed Trust Clients</th><th>Master Trust Assets (in millions)</th><th>Directed Trust Assets (in millions)</th><th>Custodial Employee Benefit Assets (in millions)</th><th>Total Employee Benefit Assets (in millions)</th></tr>
<tr><td rowspan="2">Bank of North Carolina
P.O. Box 18868
Raleigh, NC 27609
Contact: W. Ross Knowles/ V.P. & T.O.
919/876-9401</td><td>278*</td><td>186</td><td>$36*</td><td>$20</td><td>$4</td><td>$64</td></tr>
<tr><td colspan="6">Services Provided: Performance measurement, portfolio review, participant recordkeeping, benefit disbursement
*Master/prototype plans.</td></tr>
<tr><td rowspan="2">Bank of Oklahoma, N.A.
P.O. Box 2300
Tulsa, OK 74192
Contact: James W. Morris/ V.P. & T.O.
918/588-6448</td><td>3</td><td>21</td><td>$197.8</td><td>$153.3</td><td>$28.7</td><td>$997.1</td></tr>
<tr><td colspan="6">Services Provided: Performance measurement, portfolio analysis, portfolio review, participant recordkeeping, ERISA disclosure assistance, benefit disbursement, automatic cash management, utilization of GIC's</td></tr>
<tr><td rowspan="2">Bankers Trust Co.
280 Park Avenue
New York, NY 10017
Contact: M. Lynne Stewart/ V.P.
212/850-2082</td><td>67
(6/30/81)</td><td>320*
(6/30/81)</td><td>$19,800
(6/30/81)</td><td>$22,600
(6/30/81)</td><td>$40,100
(6/30/81)</td><td>$42,400
(6/30/81)</td></tr>
<tr><td colspan="6">Services Provided: Performance measurement, portfolio analysis, portfolio review, participant recordkeeping, ERISA disclosure assistance, benefit disbursement, index fund, market inventory fund, multiple plan accounting, global custody and multi-currency accounting and reporting, directed advisor interface, remote on-line inquiry, plan and investment consulting
*Includes all other trusts.</td></tr>
<tr><td rowspan="2">Bishop Trust Co., Ltd.
P.O. Box 2390
Honolulu, HI 96804
Contact: Daniel P. Zaehring/ V.P. & Mgr.
808/523-2111</td><td>74</td><td>200</td><td>$40</td><td>$30</td><td>$110</td><td>$180</td></tr>
<tr><td colspan="6">Services Provided: Performance measurement, portfolio analysis, portfolio review, participant recordkeeping, ERISA disclosure assistance, benefit disbursement, plan design consulting</td></tr>
<tr><td rowspan="2">Boston Safe Deposit & Trust Co.
One Boston Place
Boston, MA 02106
Contact: C. Edward Broom/ S.V.P.
617/722-7000</td><td>17</td><td>65</td><td>$8,652</td><td>$313</td><td>$225</td><td>$9,190</td></tr>
<tr><td colspan="6">Services Provided: Performance measurement, portfolio analysis, portfolio review, participant recordkeeping, ERISA disclosure assistance, benefit disbursement, on-line analytical timesharing</td></tr>
</table>

Number of Separate Portfolios Maintained	Average Number of Accounts per Account Supervisor	Average Number of Accounts per Investment Mgr. Contact	Accounting System Utilized	Fail Float Credit	Short-Term Instruments Used	Date Interest on Short-Term Fund Credited	Timeliness of Reporting Package
116	232	58	Contractual settlement date	No	Money market fund, group funds	5th of month	3 weeks
Crediting Dividend and Interest Policy: Througn DTC & correspondent bank on due date. **Fee Structure:** Based on combination of asset value and individual services performed.							
52	90	10	Contractual settlement date	No	Bank-operated STIF funds, master notes, specialized money funds, individual issues of commercial paper, T-bills, CD's	2nd day of month	12th of following month
Crediting Dividend and Interest Policy: Automatic computer credit on payable date. **Fee Structure:** Based on combination of asset value and individual services performed.							
750 accounts	15-17	10-15	Trade date full accrual, contractual settlement date, actual delivery date	Yes	Interim investment fund, GMAC master note	2nd or 3rd business day of each month	Cash statement received by client 2-3 business days after month-end; statement of investments received by client 7-10 business days after month-end under trade date accounting
Crediting Dividend and Interest Policy: In Federal funds on payable date. **Fee Structure:** Based on combination of asset value and individual services performed.							
65	150	38	Contractual settlement date with pending adjustment	Not reported	Money market fund, commercial paper, repos, CD's	Maturity date	Transactions — 3rd business day; asset value reports — 10th business day of following month
Crediting Dividend and Interest Policy: On payable date. **Fee Structure:** Based on combination of asset value and individual services performed.							
120 (master trust only)	4 (master trust only)	6-8	Trade date full accrual parallel with settlement date cash basis system	N/A	Repos, commercial paper, CD's, BA's, short-term government agency notes	Earned daily, credited monthly	5 business days after cutoff date for transactions affecting the accounting period
Crediting Dividend and Interest Policy: Payable date for Federal funds; first business day after payable date for clearinghouse funds. **Fee Structure:** Based on combination of asset value and individual services performed.							

Name and Address of Bank	Number of Separate Master Trust Clients	Number of Directed Trust Clients	Master Trust Assets (in millions)	Directed Trust Assets (in millions)	Custodial Employee Benefit Assets (in millions)	Total Employee Benefit Assets (in millions)
California First Bank **Pension Trust Division** **530 "B" Street** **San Diego, CA 92112** **Contact:** Horace B. Benjamin/ V.P. 714/294-4504	0	688	0	$186.0*	$186.0*	$219.3
	Services Provided: Performance measurement, portfolio analysis, portfolio review, participant recordkeeping, ERISA disclosure assistance, benefit disbursement, design, installation, and submission to governmental agencies of all types of master documents *Directed and custodial defined alike.					
Central National Bank **800 Superior Avenue** **Cleveland, OH 44114** **Contact:** Robert F. Howard/ V.P. 216/344-3000	11	5	$252.3	$145.7	Not reported	$650
	Services Provided: Performance measurement, participant recordkeeping, ERISA disclosure assistance, benefit disbursement					
Central Penn National Bank **Five Penn Center Plaza** **Philadelphia, PA 19103** **Contact:** Thomas A. Campbell/ T.O. 215/854-3058	0	11	0	$19	$45	$130
	Services Provided: Portfolio analysis, portfolio review, participant recordkeeping, ERISA disclosure assistance, benefit disbursement					
The Chase Manhattan Bank, N.A. **33rd Floor** **1211 Avenue of the Americas** **New York, NY 10036** **Contact:** Edward E. Madden/ V.P., Grp. Exec. 212/730-3110	71*	117	$28,200	$1,900	$16,200	$49,500
	Services Provided: Performance measurement, portfolio analysis, portfolio review, participant recordkeeping, ERISA disclosure assistance, benefit disbursement, index fund, market inventory fund, international custody, securities lending, multi-currency accounting *Master trust/custody clients.					
Chemical Bank **30 Rockefeller Plaza** **New York, NY 10112** **Contact:** Rein Lumi/V.P. 212/621-2542	36	159	$4,800	$1,400	Not reported	Not reported
	Services Provided: Performance measurement, portfolio analysis, portfolio review, participant recordkeeping, ERISA disclosure assistance, benefit disbursement, index fund, securities lending, options management					
Chittenden Trust Co. **P.O. Box 820** **Burlington, VT 05401** **Contact:** Anne Beverly/ Pension T.O. 802/658-4000	0	33*	0	$30.2*	$10.2	$40.5
	Services Provided: Performance measurement, portfolio analysis, portfolio review, participant recordkeeping, ERISA disclosure assistance, benefit disbursement, index fund, market inventory fund *Includes IRS-approved master plans					
Citibank, N.A. **One Citicorp Center** **25th Floor/Zone 7** **New York, NY 10043** **Contact:** Michael Costa/V.P. 212/559-9838	12	113	$2,800	$3,200	$16,000	$22,000
	Services Provided: Performance management, portfolio analysis, portfolio review, participant recordkeeping, ERISA disclosure assistance, benefit disbursement, index fund, market inventory fund, securities lending, global custody, on-line reporting, customized statements					

<table>
<tr><th>Number of Separate Portfolios Maintained</th><th>Average Number of Accounts per Account Supervisor</th><th>Average Number of Accounts per Investment Mgr. Contact</th><th>Accounting System Utilized</th><th>Fail Float Credit</th><th>Short-Term Instruments Used</th><th>Date Interest on Short-Term Fund Credited</th><th>Timeliness of Reporting Package</th></tr>
<tr><td>787</td><td>112</td><td>18</td><td>Contractual settlement date</td><td>No</td><td>STIF</td><td>Last business day of month</td><td>2nd week of month following designated period-end</td></tr>
<tr><td colspan="8">Crediting Dividend and Interest Policy: Credited to trust account on payable date.
Fee Structure: Based on combination of asset value and individual services performed or flat quote (possibly).</td></tr>
<tr><td>24</td><td>4</td><td>3</td><td>Contractual settlement date</td><td>No</td><td>STIF, variable rate master notes</td><td>Within 3 business days</td><td>Within 10 business days</td></tr>
<tr><td colspan="8">Crediting Dividend and Interest Policy: On pay date.
Fee Structure: Based on combination of asset value and individual services performed.</td></tr>
<tr><td>30</td><td>Not reported</td><td>15</td><td>Contractual settlement date</td><td>No</td><td>Money market funds, master notes</td><td>Last day of month</td><td>Within 10 days of reporting date</td></tr>
<tr><td colspan="8">Crediting Dividend and Interest Policy: Credited to account on receipt.
Fee Structure: Based on individual services performed, combination of asset value and individual services performed, or flat quote.</td></tr>
<tr><td>840</td><td>11</td><td>25</td><td>Trade date full accrual</td><td>Yes</td><td>Domestic STIF, international STIF</td><td>Accrued daily, credited monthly</td><td>5-10 days</td></tr>
<tr><td colspan="8">Crediting Dividend and Interest Policy: Federal funds on payable date.
Fee Structure: Based on individual services performed.</td></tr>
<tr><td>Not reported</td><td>25-30</td><td>Not reported</td><td>Contractual settlement date with pending adjustment, actual delivery date upon request</td><td>No</td><td>Chemical Bank commingled employee benefit STIF</td><td>Daily</td><td>Cash statement within 3-5 days of period-end; trust accountings within 10-12 days after close</td></tr>
<tr><td colspan="8">Crediting Dividend and Interest Policy: Automatically credited by system on payable date.
Fee Structure: Based on asset value only.</td></tr>
<tr><td>8</td><td>60</td><td>16</td><td>Actual delivery date</td><td>Yes</td><td>Federated funds</td><td>Monthly</td><td>Can be annual, semiannual, quarterly, or monthly as desired</td></tr>
<tr><td colspan="8">Crediting Dividend and Interest Policy: Cash on monthly basis.
Fee Structure: Based on combination of asset value and individual services performed.</td></tr>
<tr><td>385</td><td>10</td><td>32</td><td>Trade date full accrual; contractual settlement date with pending adjustment available</td><td>Yes</td><td>STIF, liquid reserve fund</td><td>Semimonthly</td><td>5-15 days, depending on complexity</td></tr>
<tr><td colspan="8">Crediting Dividend and Interest Policy: Payable date in appropriate funds.
Fee Structure: Based on combination of asset value and individual services performed.</td></tr>
</table>

<table>
<tr><th>Name and Address of Bank</th><th>Number of Separate Master Trust Clients</th><th>Number of Directed Trust Clients</th><th>Master Trust Assets (in millions)</th><th>Directed Trust Assets (in millions)</th><th>Custodial Employee Benefit Assets (in millions)</th><th>Total Employee Benefit Assets (in millions)</th></tr>
<tr><td rowspan="2">Citizens & Southern National Bank
P.O. Box 4114
Atlanta, GA 30302
Contact: R. Schweitzer/V.P.
404/581-4018</td><td>12</td><td>39</td><td>$380</td><td>$123</td><td>$271</td><td>$2,734</td></tr>
<tr><td colspan="6">Services Provided: Performance measurement, portfolio analysis, portfolio review, participant recordkeeping, ERISA disclosure assistance, benefit disbursement, pension/profit-sharing pooled funds</td></tr>
<tr><td rowspan="2">Citytrust
961 Main Street
Bridgeport, CT 06601
Contact: Peter E. Bowles/V.P. & T.O.
203/384-5243</td><td>4</td><td>10</td><td>$40</td><td>$30</td><td>$4.3</td><td>$200</td></tr>
<tr><td colspan="6">Services Provided: Performance measurement, portfolio analysis, portfolio review, participant recordkeeping, ERISA disclosure assistance, benefit disbursement, 5500 forms, guaranteed insurance annuity contracts</td></tr>
<tr><td rowspan="2">Commerce Bank of Kansas City, N.A.
P.O. Box 248
Kansas City, MO 64141
Contact: David G. Hendrix/V.P.
816/234-2551</td><td>4</td><td>100</td><td>$196</td><td>$417</td><td>$32.2</td><td>$630</td></tr>
<tr><td colspan="6">Services Provided: Performance measurement, portfolio analysis, participant recordkeeping, ERISA disclosure assistance, benefit disbursement, automatic cash management</td></tr>
<tr><td rowspan="2">Commercial National Bank of Peoria
301 Southwest Adams
Peoria, IL 61631
Contact: Douglas S. Stewart/V.P.
309/655-5393</td><td>1</td><td>50</td><td>$1</td><td>$30</td><td>$0</td><td>$150</td></tr>
<tr><td colspan="6">Services Provided: Performance measurement, portfolio analysis, portfolio review, participant recordkeeping, benefit disbursement</td></tr>
<tr><td rowspan="2">Commonwealth National Bank
P.O. Box 1010
Harrisburg, PA 17108
Contact: Elwood Buss/V.P.
717/564-9500</td><td>3</td><td>2</td><td>$25</td><td>$15</td><td>$40</td><td>$180</td></tr>
<tr><td colspan="6">Services Provided: Performance measurement, participant recordkeeping, benefit disbursement</td></tr>
<tr><td rowspan="2">Continental Illinois National Bank and Trust Co. of Chicago
30 North LaSalle Street
Chicago, IL 60693
Contact: Anthony P. Wilson/V.P.
312/828-7007</td><td>24</td><td>66</td><td>$1,785</td><td>$2,490</td><td>$225</td><td>$7,300</td></tr>
<tr><td colspan="6">Services Provided: Performance measurement, portfolio analysis, portfolio review, participant recordkeeping, ERISA disclosure assistance, benefit disbursement, index fund, asset/liability modeling, electronic mail/remote inquiry, securities lending, cash management</td></tr>
<tr><td rowspan="2">Crocker National Bank
111 Sutter Street
San Francisco, CA 94104
Contact: Stephen McDonald/S.V.P. & Mgr.
415/477-3133</td><td colspan="2">95 (combined)</td><td colspan="2">$5,300 (combined)</td><td>$5,700</td><td>$7,500</td></tr>
<tr><td colspan="6">Services Provided: Performance measurement, portfolio analysis, portfolio review, participant recordkeeping, ERISA disclosure assistance, benefit disbursement, cash management, combined reporting, options trading, securities lending, real estate equity fund, foreign securities fund, asset allocation modeling</td></tr>
</table>

<table>
<tr><th>Number of Separate Portfolios Maintained</th><th>Average Number of Accounts per Account Supervisor</th><th>Average Number of Accounts per Investment Mgr. Contact</th><th>Accounting System Utilized</th><th>Fail Float Credit</th><th>Short-Term Instruments Used</th><th>Date Interest on Short-Term Fund Credited</th><th>Timeliness of Reporting Package</th></tr>
<tr><td>50</td><td>11</td><td>15</td><td>Actual delivery date</td><td>No</td><td>Cash management fund managed by C&S</td><td>Earnings posted weekly</td><td>Daily with 24-hour lag, monthly statements within 72 hours</td></tr>
<tr><td colspan="8">Crediting Dividend and Interest Policy: Immediate credit to account on due date.
Fee Structure: Based on asset value only for investments, based on individual services performed for plan administration.</td></tr>
<tr><td>240</td><td>80</td><td>45</td><td>Trade date full accrual</td><td>In development</td><td>T-bills, commercial paper, short-term money market funds</td><td>Daily</td><td>Accountings as frequently as monthly provided within 2 weeks after closing</td></tr>
<tr><td colspan="8">Crediting Dividend and Interest Policy: Credit trust account when actually received.
Fee Structure: Based on combination of asset value and individual services performed.</td></tr>
<tr><td>75</td><td>100</td><td>25</td><td>Trade date full accrual, contractual settlement date with pending adjustment</td><td>No</td><td>Master notes, liquid asset fund, short-term government securities, CD's, commercial paper</td><td>Monthly</td><td>MT — by 10th calendar date, DT — 15th of month</td></tr>
<tr><td colspan="8">Crediting Dividend and Interest Policy: Automatic income release on payment date.
Fee Structure: Based on combination of asset value and individual services performed; flat quote available.</td></tr>
<tr><td>300</td><td>100</td><td>100</td><td>Actual delivery date</td><td>No</td><td>STIF</td><td>First business day of each month</td><td>20 days from month-end</td></tr>
<tr><td colspan="8">Crediting Dividend and Interest Policy: On due date.
Fee Structure: Based on combination of asset value and individual services performed.</td></tr>
<tr><td>8</td><td>2</td><td>2</td><td>Contractual settlement date</td><td>No</td><td>In-house STIF</td><td>Accrued daily</td><td>60 days</td></tr>
<tr><td colspan="8">Crediting Dividend and Interest Policy: On payable date.
Fee Structure: Based on combination of asset value and individual services performed or flat quote.</td></tr>
<tr><td>626</td><td>20-25</td><td>20-25</td><td>Trade date full accrual, contractual settlement date with pending adjustment, contractual settlement date, actual delivery date</td><td>Not reported</td><td>Open time deposits, master notes, STIF</td><td>First day of month</td><td>Investment review and cash/activity statements within 5 business days; fund accounting schedules within 30 business days</td></tr>
<tr><td colspan="8">Crediting Dividend and Interest Policy: In Federal funds on payable date.
Fee Structure: Based on combination of asset value and individual services performed or flat quote.</td></tr>
<tr><td>142</td><td>9.5</td><td>5</td><td>Trade date full accrual</td><td>Yes</td><td>STIF, master notes, other money market instruments</td><td>Last business day of month</td><td>3-5 business days after period-end</td></tr>
<tr><td colspan="8">Crediting Dividend and Interest Policy: Good funds available for reinvestment on payable date.
Fee Structure: Based on individual services performed.</td></tr>
</table>

Name and Address of Bank	Number of Separate Master Trust Clients	Number of Directed Trust Clients	Master Trust Assets (in millions)	Directed Trust Assets (in millions)	Custodial Employee Benefit Assets (in millions)	Total Employee Benefit Assets (in millions)
East Wisconsin Trustee Co. **1000 Franklin Street** **Manitowoc, WI 54220** **Contact:** Jim Noffke/V.P. & T.O. 414/682-0104	0	18	0	$70	$3.5	$81
	Services Provided: Portfolio review, participant recordkeeping, ERISA disclosure assistance, benefit disbursement					
The Fidelity Bank **Broad and Walnut Streets** **Philadelphia, PA 19109** **Contact:** Martin Offenberg/V.P. 215/985-8147	1	28	$196	$242.6	$10	$929
	Services Provided: Participant recordkeeping, ERISA disclosure assistance, benefit disbursement					
Fiduciary Trust Co. of New York **Two World Trade Center** **New York, NY 10048** **Contact:** Peter V. Haight/V.P. 212/466-4100	2	17	$225	$58	$34	$317
	Services Provided: Performance measurement, portfolio analysis, portfolio review, ERISA disclosure assistance, benefit disbursement, unitized recordkeeping					
The Fifth Third Bank **Trust Department 00850** **Fifth Third Center** **Cincinnati, OH 45263** **Contact:** Stephen E. Root/T.O. 513/579-5493	0	27	0	$32	$57	$452
	Services Provided: Performance measurement, portfolio analysis, portfolio review, participant recordkeeping, benefit disbursement					
The Firestone Bank **1115 South Main Street** **Akron, OH 44301** **Contact:** Howard W. Cable, Jr./S.V.P., Sec., & T.O. 216/375-1864	0	172	0	$33.9	$3.6	$37.5
	Services Provided: Portfolio analysis, portfolio review, participant recordkeeping, ERISA disclosure assistance, benefit disbursement					
First City Bank of Dallas **P.O. Box 88000** **Dallas, TX 75388** **Contact:** Jefferson A. Jolly/V.P. & T.O. 214/655-8335	6	0	$100*	0	$114*	$250*
	Services Provided: Performance measurement, portfolio analysis, portfolio review, participant recordkeeping, ERISA disclosure assistance, benefit disbursement, third party administration — medical benefits, short- or long-term disability *Estimated.					
First City National Bank **909 Fannin Street** **P.O. Box 809** **Houston, TX 77001** **Contact:** Terry Lambert/V.P. 713/658-6705	5	15	$509.6	$500	$341	$2,800
	Services Provided: Performance measurement, portfolio analysis, portfolio review, participant recordkeeping, ERISA disclosure assistance, benefit disbursement					
First Interstate Bank of Utah **P.O. Box 30169** **Salt Lake City, UT 84142** **Contact:** Anthony A. Vazulik/T.O. 801/350-7167	30*	60	$21*	$60	$36	$117
	Services Provided: Performance measurement, portfolio review, benefit disbursement *Master/prototype plans.					

<table>
<tr><th>Number of Separate Portfolios Maintained</th><th>Average Number of Accounts per Account Supervisor</th><th>Average Number of Accounts per Investment Mgr. Contact</th><th>Accounting System Utilized</th><th>Fail Float Credit</th><th>Short-Term Instruments Used</th><th>Date Interest on Short-Term Fund Credited</th><th>Timeliness of Reporting Package</th></tr>
<tr><td>50</td><td>75</td><td>50</td><td>Contractual settlement date</td><td>Yes</td><td>Money market funds</td><td>3rd business day following month-end</td><td>10 business days</td></tr>
<tr><td colspan="8">Crediting Dividend and Interest Policy: On payable date.
Fee Structure: Based on combination of asset value and individual services performed.</td></tr>
<tr><td>50</td><td>10-15</td><td>Not reported</td><td>Trade date full accrual, contractual settlement date, actual delivery date</td><td>No</td><td>STIF, master notes</td><td>First business day of month</td><td>10-15 days following month-end</td></tr>
<tr><td colspan="8">Crediting Dividend and Interest Policy: Cash on payable date.
Fee Structure: Based on combination of asset value and individual services performed.</td></tr>
<tr><td>51</td><td>10</td><td>10</td><td>Trade date full accrual</td><td>Yes</td><td>Repos, money market funds, U.S. treasury obligations, master notes</td><td>Payable date</td><td>10 business days</td></tr>
<tr><td colspan="8">Crediting Dividend and Interest Policy: Cash on payable date.
Fee Structure: Based on individual services performed.</td></tr>
<tr><td>66</td><td>11*</td><td>13**</td><td>Contractual settlement date</td><td>No</td><td>Master demand notes, T-bills, commercial paper, STIF</td><td>First business day of month</td><td>10 days after period-end</td></tr>
<tr><td colspan="8">Crediting Dividend and Interest Policy: Credit account on payable date.
Fee Structure: Based on combination of asset value and individual services performed.
*Directed/custodial accounts.
**Separately invested.</td></tr>
<tr><td>172</td><td>172</td><td>172</td><td>Actual delivery date</td><td>No</td><td>Money market funds, commercial paper, T-bills</td><td>5th business day</td><td>Not reported</td></tr>
<tr><td colspan="8">Crediting Dividend and Interest Policy: Cash basis as received.
Fee Structure: Based on combination of asset value and individual services performed.</td></tr>
<tr><td>195*</td><td>60</td><td>8*</td><td>Contractual settlement date with pending adjustment</td><td>Negotiated</td><td>Money market fund</td><td>First day of following month</td><td>10th of month</td></tr>
<tr><td colspan="8">Crediting Dividend and Interest Policy: Interest — immediate credit on day of receipt; dividends — immediate credit on payable date plus one.
Fee Structure: Based on combination of asset value and individual services performed.
*Estimated.</td></tr>
<tr><td>120</td><td>40</td><td>15</td><td>Not reported</td><td>No</td><td>Short-Term Investment Co. — registered security</td><td>Daily</td><td>Approx. 30 days</td></tr>
<tr><td colspan="8">Crediting Dividend and Interest Policy: Credited to account on contractual settlement date.
Fee Structure: Based on combination of asset value and individual services performed.</td></tr>
<tr><td>80</td><td>80</td><td>80</td><td>Trade date full accrual</td><td>Not reported</td><td>Master note, temporary investment fund (TIF)</td><td>Month-end</td><td>Not reported</td></tr>
<tr><td colspan="8">Crediting Dividend and Interest Policy: Not reported.
Fee Structure: Based on combination of asset value and individual services performed.</td></tr>
</table>

Name and Address of Bank	Number of Separate Master Trust Clients	Number of Directed Trust Clients	Master Trust Assets (in millions)	Directed Trust Assets (in millions)	Custodial Employee Benefit Assets (in millions)	Total Employee Benefit Assets (in millions)
First National Bank **P.O. Drawer 146** **Mobile, AL 36621**	10	25	$10	$20	$2	$125
Contact: C. H. Gibbons/V.P. 205/438-8011	**Services Provided:** Performance measurement, portfolio analysis, portfolio review, participant recordkeeping, ERISA disclosure assistance, benefit disbursement, market inventory fund					
First National Bank in Albuquerque **40 First Plaza** **Albuquerque, NM 87102**	146*	31	$50.0	$12.1	$.6	$62.7
Contact: William G. Odins/ S.V.P. & T.O. 505/765-4454	**Services Provided:** Performance measurement, portfolio analysis, portfolio review, participant recordkeeping, ERISA disclosure assistance, benefit disbursement, annual IRS filing *Master/prototype plans.					
First National Bank of Atlanta **P.O. Box 4148** **Two Peachtree Street** **Atlanta, GA 30302**	5	10	$1,308.5	$43.2	$129.3	$1,979.2
Contact: Sherry Gordon/V.P. 404/588-5267	**Services Provided:** Performance measurement, portfolio analysis, portfolio review, participant recordkeeping, ERISA disclosure assistance, benefit disbursement, short-term cash management for directed accounts					
The First National Bank of Chicago **One First National Plaza** **Chicago, IL 60670**	38	53	$3,680	$360	$2,240	$11,120
Contact: Daniel J. Lenckos/ V.P. 312/732-7704	**Services Provided:** Performance measurement, portfolio analysis, portfolio review, participant recordkeeping, ERISA disclosure assistance, benefit disbursement, index fund, risk analysis, universe comparison, real estate fund, asset allocation, international management and custody					
First National Bank of Denver **633-17th Street** **P.O. Box 5825** **Denver, CO 80217**	5	29	$213	$84	$375	$672
Contact: Dennis E. Larkin/V.P. 303/893-2211	**Services Provided:** Performance measurement, portfolio analysis, portfolio review, participant recordkeeping, benefit disbursement					
First National Bank of Kansas City **P.O. Box 294** **Kansas City, MO 64141**	2	35	$124.9	$90.5	$123.6	$511.5
Contact: Michael J. Patton/ V.P. 816/221-2800	**Services Provided:** Performance measurement, participant recordkeeping, ERISA disclosure assistance, benefit disbursement					
First National Bank of Minneapolis **P.O. Box A700** **120 South Sixth Street** **Minneapolis, MN 55480**	12	90	$200	$600	$2,050	$2,250
Contact: Thomas S. Kalbrener/Corp. T. Mktg. O. 612/370-4474	**Services Provided:** Performance measurement, portfolio analysis, portfolio review, participant recordkeeping, ERISA disclosure assistance, benefit disbursement, index fund					

<table>
<tr><th>Number of Separate Portfolios Maintained</th><th>Average Number of Accounts per Account Supervisor</th><th>Average Number of Accounts per Investment Mgr. Contact</th><th>Accounting System Utilized</th><th>Fail Float Credit</th><th>Short-Term Instruments Used</th><th>Date Interest on Short-Term Fund Credited</th><th>Timeliness of Reporting Package</th></tr>
<tr><td>364</td><td>180</td><td>180</td><td>Actual delivery date</td><td>No</td><td>In-house STIF, demand notes</td><td>Daily</td><td>Monthly</td></tr>
<tr><td colspan="8">Crediting Dividend and Interest Policy: Cash or wire when received.
Fee Structure: Based on combination of asset value and individual services performed.</td></tr>
<tr><td>178</td><td>90</td><td>90</td><td>Actual delivery date (payment vs. delivery)</td><td>No</td><td>Variable rate repos</td><td>2nd business day following month-end</td><td>2 months following year-end</td></tr>
<tr><td colspan="8">Crediting Dividend and Interest Policy: Automatic posting to account on payable date.
Fee Structure: Based on combination of asset value and individual services performed.</td></tr>
<tr><td>331</td><td>10-20, depending on size of portfolio</td><td>10-20</td><td>Contractual settlement date with pending adjustment</td><td>No</td><td>Collective STIF, master notes, commercial paper, repos</td><td>Approx. 5th of following month</td><td>As customer requires, from as soon as 5th business day following month-end but no later than 30 days</td></tr>
<tr><td colspan="8">Crediting Dividend and Interest Policy: Posted to account on pay date.
Fee Structure: Based on combination of asset value and individual services performed.</td></tr>
<tr><td>227</td><td>5</td><td>20</td><td>Trade date full accrual</td><td>Yes</td><td>STIF, master notes, CD's, commercial paper, T-bills, repos, etc.</td><td>Month-end</td><td>8-10 business days</td></tr>
<tr><td colspan="8">Crediting Dividend and Interest Policy: Actual credit and available for investment on payable date.
Fee Structure: Based on combination of asset value and individual services performed.</td></tr>
<tr><td>34</td><td>10</td><td>10</td><td>Contractual settlement date</td><td>No</td><td>Not reported</td><td>Not reported</td><td>1-2 weeks after month-end</td></tr>
<tr><td colspan="8">Crediting Dividend and Interest Policy: Pay date plus one.
Fee Structure: Based on combination of asset value and individual services performed.</td></tr>
<tr><td>280*</td><td>93</td><td>Not reported</td><td>Contractual settlement date</td><td>No</td><td>GMAC, Federated master trust direct paper</td><td>Month-end</td><td>Within 10 business days of reporting period</td></tr>
<tr><td colspan="8">Crediting Dividend and Interest Policy: Credit to accounts in available funds on pay date.
Fee Structure: Based on combination of asset value and individual services performed.
*Includes master/directed/custodial accounts.</td></tr>
<tr><td>100</td><td>15-40</td><td>15-40</td><td>Contractual settlement date</td><td>No</td><td>Master CD's, T-bills, commercial paper, pooled short-term money funds</td><td>4th day after month-end</td><td>3rd business day</td></tr>
<tr><td colspan="8">Crediting Dividend and Interest Policy: On payable date.
Fee Structure: Based on combination of asset value and individual services performed.</td></tr>
</table>

Name and Address of Bank	Number of Separate Master Trust Clients	Number of Directed Trust Clients	Master Trust Assets (in millions)	Directed Trust Assets (in millions)	Custodial Employee Benefit Assets (in millions)	Total Employee Benefit Assets (in millions)
First National Bank of Topeka **P.O. Box 88** **Topeka, KS 66601** **Contact:** Clifford W. Shinski/ V.P. & T. Oper. O. 913/295-3422	0	5	0	$44	$761	$823
	Services Provided: Performance measurement, portfolio analysis, portfolio review, benefit disbursement, cash management, combined reporting					
First Pennsylvania Bank, N.A. **15th and Chestnut Streets** **Philadelphia, PA 19101** **Contact:** James M. Cleary/ V.P. 215/786-8708	3	40	$225	$382	Not reported	$1,257
	Services Provided: Performance measurement, portfolio analysis, portfolio review, participant recordkeeping, ERISA disclosure assistance, benefit disbursement					
First State Bank of Oregon **520 Southwest Sixth Avenue** **P.O. Box 272** **Portland, OR 97207** **Contact:** Gary H. Blanchard/ S.T.O., Mgr., E.B. Div. 503/243-3512	0	114	0	$29.8	$113	$193.1
	Services Provided: Participant recordkeeping, benefit disbursement					
First Trust Co. of St. Paul **W-555 First National Bank Building** **St. Paul, MN 55101** **Contact:** Roger R. Schaeffer/ V.P. 612/291-5072	4	25	$850	$350	$21	$2,350*
	Services Provided: Performance measurement, portfolio analysis, portfolio review, participant recordkeeping, ERISA disclosure assistance, benefit disbursement**, index fund, market inventory fund**, TUCS *Includes discretionary accounts. **Have capability but not currently utilized.					
First Union National Bank of North Carolina **First Union Plaza TRST-16** **Charlotte, NC 28288** **Contact:** Peter R. Nagle/V.P. 704/374-6152	6	26	$45	$678	$716	$1,689
	Services Provided: Performance measurement, portfolio analysis, participant recordkeeping, benefit disbursement, GIC selections, options custody, securities lending					
First Wisconsin Trust Co. **P.O. Box 2054** **Milwaukee, WI 53201** **Contact:** Robert Derwae/Mktg. Rep. 414/765-5214	19	750	$850	$900	$1,750	$2,300
	Services Provided: Performance measurement, portfolio analysis, portfolio review, participant recordkeeping, ERISA disclosure assistance, benefit disbursement					

<table>
<tr><th>Number of Separate Portfolios Maintained</th><th>Average Number of Accounts per Account Supervisor</th><th>Average Number of Accounts per Investment Mgr. Contact</th><th>Accounting System Utilized</th><th>Fail Float Credit</th><th>Short-Term Instruments Used</th><th>Date Interest on Short-Term Fund Credited</th><th>Timeliness of Reporting Package</th></tr>
<tr><td>7</td><td>3</td><td>Varies</td><td>Actual delivery date, trade date full accrual to begin in 1982</td><td>No</td><td>In-house STIF, master notes, money market funds, direct purchase of money market instruments</td><td>Month-end</td><td>5-15 business days</td></tr>
<tr><td colspan="8">Crediting Dividend and Interest Policy: On receipt.
Fee Structure: Based on combination of asset value and individual services performed.</td></tr>
<tr><td>500</td><td>55</td><td>25</td><td>Trade date full accrual, contractual settlement date with pending adjustment, contractual settlement date, or actual delivery date, per client request</td><td>Yes</td><td>Repos, commercial paper, CD's, treasury obligations, STIF, master notes</td><td>Earned daily, credited first day of following month</td><td>By 15th of following month</td></tr>
<tr><td colspan="8">Crediting Dividend and Interest Policy: Clearinghouse funds on payable date.
Fee Structure: Based on individual services performed.</td></tr>
<tr><td>276*</td><td>39</td><td>Not reported</td><td>Actual delivery date (payment vs. delivery)</td><td>Not reported</td><td>Federated money market funds</td><td>By 3rd business day of month</td><td>10th-15th of month</td></tr>
<tr><td colspan="8">Crediting Dividend and Interest Policy: When received.
Fee Structure: Flat quote for union custodial; based on asset value only for all other accounts.
*Includes sub accounts.</td></tr>
<tr><td>55</td><td>7.5</td><td>2</td><td>Trade date full accrual</td><td>Yes</td><td>In-house STIF, Federated master trust, other short-term instruments</td><td>3rd business day after month-end</td><td>10th business day after month-end</td></tr>
<tr><td colspan="8">Crediting Dividend and Interest Policy: On payable date.
Fee Structure: Based on combination of asset value and individual services performed.</td></tr>
<tr><td>65</td><td>40</td><td>20</td><td>Contractual settlement date</td><td>Yes</td><td>Internal daily fund, master notes</td><td>Month-end or at time of sale</td><td>Investment reviews — 2 weeks; accountings — 4 weeks</td></tr>
<tr><td colspan="8">Crediting Dividend and Interest Policy: On payable date.
Fee Structure: Based on combination of asset value and individual services performed.</td></tr>
<tr><td>50</td><td>4</td><td>15</td><td>Trade date full accrual, contractual settlement date</td><td>On sell side only</td><td>STIF</td><td>Monthly</td><td>15 days</td></tr>
<tr><td colspan="8">Crediting Dividend and Interest Policy: Automatic credit on payment date.
Fee Structure: Based on combination of asset value and individual services performed.</td></tr>
</table>

Name and Address of Bank	Number of Separate Master Trust Clients	Number of Directed Trust Clients	Master Trust Assets (in millions)	Directed Trust Assets (in millions)	Custodial Employee Benefit Assets (in millions)	Total Employee Benefit Assets (in millions)
Florida National Bank **General Mail Center/Trust Department** **Jacksonville, FL 32231** **Contact:** Walton C. Jennette, Jr./V.P. & T.O. 904/359-5310	2	48	$107.5	$8.6	$114.2	$301.3
	Services Provided: Performance measurement, portfolio analysis, portfolio review, participant recordkeeping, ERISA disclosure assistance, benefit disbursement					
Guaranty Trust Co. of Canada **366 Bay Street** **Toronto, Ont. M5H 2W5** **Contact:** P. D. Thomas/Nat'l Mgr., Pension Adm. Svcs.; R. K. Weller/A.V.P., Pension Svcs. 416/863-5168	8	22	$267.4	$93.6	Not reported	$590
	Services Provided: Performance measurement, portfolio analysis, portfolio review, participant recordkeeping, benefit disbursement, cash management					
Harris Trust and Savings Bank **11 West Monroe Street** **Chicago, IL 60690** **Contact:** Richard C. Caldwell/V.P. 312/461-6942	26 (relationships)	62	$5,868	$1,132*	$1,132*	$14,624.4 (12/31/80)
	Services Provided: Performance measurement, portfolio analysis, portfolio review, participant recordkeeping, ERISA disclosure assistance, benefit disbursement, index fund, market inventory fund, securities lending, plan advisory *Consider the same.					
Huntington National Bank **P.O. Box 1558** **37 West Broad Street** **Columbus, OH 43260** **Contact:** Ed B. Ranucci/V.P., Corp. T. Svcs. 614/469-7103	0	500	0	$100	$20	$300
	Services Provided: Performance measurement, portfolio analysis, portfolio review, participant recordkeeping, ERISA disclosure assistance, benefit disbursement, immunized bond fund, special situation stock fund, tax report preparation					
Irving Trust Co. **One Wall Street** **New York, NY 10015** **Contact:** Bartley J. Fleming, Jr./V.P. 212/487-2121	21	78	$5,818.3	$633.5	$2,000	$8,861.4 (12/31/80)
	Services Provided: Performance measurement, portfolio analysis, participant recordkeeping, ERISA disclosure assistance, benefit disbursement, index fund, market inventory fund, securities lending, TUCS, investment management, ESOP/TRASOP trustee					
Jefferson Bank of Peoria **124 Southwest Adams Street** **Peoria, IL 61649** **Contact:** Michael J. Crecco/A.V.P. 309/672-6183	1	54	$20	$14	$7	$63
	Services Provided: Portfolio analysis, portfolio review, participant recordkeeping, benefit disbursement					

Number of Separate Portfolios Maintained	Average Number of Accounts per Account Supervisor	Average Number of Accounts per Investment Mgr. Contact	Accounting System Utilized	Fail Float Credit	Short-Term Instruments Used	Date Interest on Short-Term Fund Credited	Timeliness of Reporting Package
57	28	0	Trade date full accrual, contractual settlement date with pending adjustment	Yes, manually	Fidelity domestic fund, money management fund, cash reserve fund, treasury fund, Fidelity liquid cash	First day of following month	Within 15 business days
Crediting Dividend and Interest Policy: Actual credit to account on payable date plus one.							
Fee Structure: Based on asset value only, individual services only, combination of asset value and individual services performed, or flat quote.							
283	100-125	1	Trade date full accrual	No	Commercial paper, bank paper, bank CD's	First day of following month	Cash statements — 5-7 business days; full stewardship report — 15 business days
Crediting Dividend and Interest Policy: Automatic credit to account on payable date.							
Fee Structure: Based on combination of asset value and individual services performed.							
353	Approx. 10 per administrator	50	Contractual settlement date with trade date adjustments	Yes	Demand notes, commercial paper, commercial paper-direct, CD's, bankers acceptances, other repos	3rd business day and available for interest	12-15 days after end of reporting period
Crediting Dividend and Interest Policy: In Federal funds on payable date and available for investment.							
Fee Structure: Based on combination of asset value and individual services performed.							
530	105	110	Contractual settlement date	No	Commercial paper fund, U.S. short-term government fund, CD fund	Within 10 days of following month	Within 10 business days of month-end
Crediting Dividend and Interest Policy: By accrual on payable date.							
Fee Structure: Based on combination of asset value and individual services performed.							
175	15 relationships per officer	30	Trade date full accrual, contractual settlement date	Yes	Irving Trust STIF, master notes, other instruments purchasable through ITC trader	First of month following month in which earned	Within 10 days after end of reporting period
Crediting Dividend and Interest Policy: Cash on payable date.							
Fee Structure: Based on combination of asset value and individual services performed.							
54	100	Not reported	Contractual settlement date	Yes	STIF	First of month	7th business day of month
Crediting Dividend and Interest Policy: Cash on payable date.							
Fee Structure: Based on combination of asset value and individual services performed.							

Name and Address of Bank	Number of Separate Master Trust Clients	Number of Directed Trust Clients	Master Trust Assets (in millions)	Directed Trust Assets (in millions)	Custodial Employee Benefit Assets (in millions)	Total Employee Benefit Assets (in millions)
Key Trust Co. **60 State Street** **Albany, NY 12207** **Contact:** James Kinner/G.V.P. 518/447-3701	0	23	0	$52.2	$66.7	$300.7
	Services Provided: Performance measurement, portfolio analysis, portfolio review, participant recordkeeping, ERISA disclosure assistance, benefit disbursement					
LaSalle National Bank **135 South LaSalle Street** **Chicago, IL 60690** **Contact:** James F. Sullivan/ S.V.P. 312/443-2497	0	147	0	$300	$500	$800
	Services Provided: Performance measurement, portfolio analysis, portfolio review, participant recordkeeping, ERISA disclosure assistance, benefit disbursement					
Lincoln First Bank, N.A. **One Lincoln First Square** **Rochester, NY 14643** **Contact:** George H. Elferink/ V.P. & Mgr. 716/262-3631	3	10	$94	$81	0	$554
	Services Provided: Performance measurement, portfolio analysis, portfolio review, participant recordkeeping, benefit disbursement					
Manufacturers & Traders Trust Co. **One Manufacturers & Traders Plaza** **Buffalo, NY 14223** **Contact:** Dennis F. Kennedy/ V.P. 716/842-5585	1	15	$24.0	$122.1	$35.3	$223.7
	Services Provided: Performance measurement, portfolio analysis, portfolio review, participant recordkeeping, benefit disbursement					
Manufacturers Hanover Trust Co. **600 Fifth Avenue** **New York, NY 10020** **Contact:** H. Kennedy Bell, Jr./ V.P. 212/957-1796	28	54	$8,700	$1,000	Not reported	$15,700
	Services Provided: Performance measurement, portfolio analysis, portfolio review, ERISA disclosure assistance, benefit disbursement, index fund, market inventory fund, securities lending					
Manufacturers National Bank of Detroit **Sixth Floor** **100 Renaissance Center** **Detroit, MI 48243** **Contact:** Richard C. VandenBrul/2nd V.P. & T.O. 313/222-4000	27	239	$8,000	$190	$1,100	$9,290
	Services Provided: Performance measurement, portfolio analysis, portfolio review, participant recordkeeping, ERISA disclosure assistance, benefit disbursement, index fund, market inventory fund, stock lending, options accounting, foreign security custodyship					
Marine Midland Bank, N.A. **250 Park Avenue** **New York, NY 10177** **Contact:** William P. Gaines/ Adm. V.P. 212/949-6507	6	35	$1,320	$790	$60	$2,170
	Services Provided: Performance measurement, portfolio analysis, portfolio review, participant recordkeeping, ERISA disclosure assistance, benefit disbursement, index fund, market inventory fund, securities lending					

<table>
<tr><th>Number of Separate Portfolios Maintained</th><th>Average Number of Accounts per Account Supervisor</th><th>Average Number of Accounts per Investment Mgr. Contact</th><th>Accounting System Utilized</th><th>Fail Float Credit</th><th>Short-Term Instruments Used</th><th>Date Interest on Short-Term Fund Credited</th><th>Timeliness of Reporting Package</th></tr>
<tr><td>0</td><td>45</td><td>2-3</td><td>Actual transaction date</td><td>No</td><td>Master notes, CD's, T-bills</td><td>Monthly</td><td>Quarterly or semiannual statements; accountings at plan year-end</td></tr>
<tr><td colspan="8">Crediting Dividend and Interest Policy: Computer generated on payable date.
Fee Structure: Based on combination of asset value and individual services performed.</td></tr>
<tr><td>30</td><td>40</td><td>10</td><td>Contractual settlement date</td><td>Only for large accts.</td><td>Commercial paper demand notes, T-bills, CD's</td><td>3rd business day of following month</td><td>10th business day of following month</td></tr>
<tr><td colspan="8">Crediting Dividend and Interest Policy: Credit to income account on pay date.
Fee Structure: Based on combination of asset value and individual services performed.</td></tr>
<tr><td>60</td><td>45</td><td>25</td><td>Contractual settlement date</td><td>No</td><td>Money market fund</td><td>Monthly and/or on final sale date</td><td>10 business days</td></tr>
<tr><td colspan="8">Crediting Dividend and Interest Policy: Automatic credit on payable date based on holders on ex date.
Fee Structure: Based on combination of asset value and individual services performed.</td></tr>
<tr><td>47</td><td>47</td><td>Not reported</td><td>Contractual settlement date</td><td>Yes</td><td>Master note, short-term U.S. government fund</td><td>Not reported</td><td>30-60 days</td></tr>
<tr><td colspan="8">Crediting Dividend and Interest Policy: Anticipated on payable date.
Fee Structure: Based on combination of asset value and individual services performed.</td></tr>
<tr><td>212</td><td>14</td><td>13</td><td>Trade date full accrual, contractual settlement date with pending adjustment, contractual settlement date, actual delivery date</td><td>Yes</td><td>Temporary investment fund (TIF)</td><td>5th business day</td><td>10-15 days after month-end</td></tr>
<tr><td colspan="8">Crediting Dividend and Interest Policy: in Federal funds on payable date.
Fee Structure: Based on combination of asset value and individual services performed.</td></tr>
<tr><td>266</td><td>38</td><td>11</td><td>Trade date full accrual, contractual settlement date</td><td>Yes</td><td>STIF</td><td>Monthly</td><td>5th business day of following month</td></tr>
<tr><td colspan="8">Crediting Dividend and Interest Policy: On payable date.
Fee Structure: Based on combination of asset value and individual services performed.</td></tr>
<tr><td>123</td><td>8</td><td>16</td><td>Contractual settlement date with pending adjustment</td><td>Yes</td><td>Marine Midland STIF, master notes, commercial paper, T-bills, CD's</td><td>First business day of following month</td><td>7 business days after end of accounting period</td></tr>
<tr><td colspan="8">Crediting Dividend and Interest Policy: In Federal funds on payable date.
Fee Structure: Based on combination of asset value and individual services performed.</td></tr>
</table>

Name and Address of Bank	Number of Separate Master Trust Clients	Number of Directed Trust Clients	Master Trust Assets (in millions)	Directed Trust Assets (in millions)	Custodial Employee Benefit Assets (in millions)	Total Employee Benefit Assets (in millions)
M&I Marshall & Ilsley Bank **770 North Water Street** **Milwaukee, WI 53201** **Contact:** Morry L. Birnbaum/ V.P. 414/765-8187	21	150	$500	$200	$350	$1,000
	Services Provided: Performance measurement, portfolio review, participant recordkeeping, ERISA disclosure assistance, benefit disbursement, plan accounting					
Mellon Bank **Mellon Square** **Pittsburgh, PA 15230** **Contact:** John Gepfert/V.P. 412/232-6861	28	22	$9,085	$824	$65	$16,000
	Services Provided: Performance measurement, portfolio analysis, portfolio review, participant recordkeeping, ERISA disclosure assistance, benefit disbursement, index fund, securities lending, international custody					
Mercantile-Safe Deposit & Trust Co. **Two Hopkins Plaza** **P.O. Box 2257** **Baltimore, MD 21203** **Contact:** George P. Govatos/ V.P. 301/237-5619	11	95	$1,789.8	$29	$1,884.3	$3,703.1*
	Services Provided: Performance measurement, portfolio analysis, portfolio review, participant recordkeeping, ERISA disclosure assistance, benefit disbursement, index fund, securities lending, asset allocation analysis *Total institutional trust assets.					
Merchants National Bank & Trust Co. of Indianapolis **One Merchants Plaza** **Indianapolis, IN 46204** **Contact:** Eduardo I. Aguirre/ V.P. 317/267-7275	0	45	0	$56	$114	$425
	Services Provided: Performance measurement, participant recordkeeping, ERISA disclosure assistance, benefit disbursement					
National Bank of Detroit **611 Woodward Avenue** **Detroit, MI 48232** **Contact:** James T. McManus/ 2nd V.P. 313/225-3221	23*	23*	$2,400*	$2,400*	$515	$5,900
	Services Provided: Performance measurement, portfolio analysis, portfolio review, participant recordkeeping, ERISA disclosure assistance, benefit disbursement, index fund, market inventory fund, securities lending, on-line access, special reports *Consider master and directed trusts as the same.					
New England Merchants National Bank **28 State Street** **Boston, MA 02106** **Contact:** Kathleen R. Sammis/ T.O. 617/743-4000 ex. 1876	0	25	0	$197.2	$16.7	$543.3
	Services Provided: Performance measurement, portfolio analysis, portfolio review, participant recordkeeping, ERISA disclosure assistance, benefit disbursement					

Number of Separate Portfolios Maintained	Average Number of Accounts per Account Supervisor	Average Number of Accounts per Investment Mgr. Contact	Accounting System Utilized	Fail Float Credit	Short-Term Instruments Used	Date Interest on Short-Term Fund Credited	Timeliness of Reporting Package	Crediting Dividend and Interest Policy	Fee Structure
40	100	25	Contractual settlement date with pending adjustment	Negotiated	Automated cash management using in-house money market funds, repos, commercial paper, T-bills	First of month	5-7 business days	On payable date.	Based on combination of asset value and individual services performed.
300	5-8 (clients)	55	Trade date full accrual (reporting)	Yes, payment on actual delivery date plus one	Temporary investment fund (TIF)	Earned daily, credited weekly	Quarterly and annually; flexible as to customer preference	Credited to client account on payable date.	Based on combination of asset value and individual services performed.
49	90	7	Contractual settlement date	Negotiable	Master notes, commingled STIF, money funds	Same day	Daily reports — next day; monthly and quarterly reports — 5-7 business days; annual reports — 4-6 weeks	Credited to account on theoretical payable and settlement day.	Based on combination of asset value, income, and individual services performed.
75	25	15	Contractual settlement date	No	Master notes, CD's, money market funds	3rd business day of month	Daily	Same day credit on payable date.	Based on combination of asset value and individual services performed.
111	12-15	10	Contractual settlement date (sales), actual delivery date (purchases)	Yes	Master notes, commercial paper, CD's, repos, bankers acceptances, T-bills	Computed daily, credited first of month	Cash statements and inventories within 7 business days; annual and plan accountings within 30 business days	Federal funds on payment date.	Based on combination of asset value and individual services performed.
18	18	18	Trade date full accrual, contractual settlement date with pending adjustment, contractual settlement date	Not reported	Demand notes, commercial paper, short-term reserve fund (money market)	2nd business day of each month	6 weeks after year-end	Preposted on payable date.	Based on combination of asset value and individual services performed.

Name and Address of Bank	Number of Separate Master Trust Clients	Number of Directed Trust Clients	Master Trust Assets (in millions)	Directed Trust Assets (in millions)	Custodial Employee Benefit Assets (in millions)	Total Employee Benefit Assets (in millions)
Northeastern Bank of Pennsylvania **P.O. Box 937** **Scranton, PA 18501** **Contact:** Robert J. Zike/V.P. 717/961-7149	0	115	0	$62.9	$12.1	$74.9
	Services Provided: Performance measurement, portfolio analysis, portfolio review, participant recordkeeping, ERISA disclosure assistance, benefit disbursement, master plans					
The Northern Trust Co. **50 South LaSalle Street** **Chicago, IL 60675** **Contact:** Thomas H. Kalen/V.P. 312/630-6000	77	33	$18,000	$1,000	Not reported	Not reported
	Services Provided: Performance measurement, portfolio analysis, portfolio review, participant recordkeeping, ERISA disclosure assistance, benefit disbursement, index fund, market inventory fund, asset allocation, global custody, securities lending, option accounting, financial futures					
Northwestern National Bank of Minneapolis **Seventh and Marquette Avenues** **Minneapolis, MN 55479** **Contact:** Thomas E. Hatcher/A.V.P. 612/372-8361	7	71	$377	$800	$300	$2,100
	Services Provided: Performance measurement, portfolio analysis, portfolio review, participant recordkeeping, ERISA disclosure assistance, benefit disbursement, index fund, securities lending					
Plaza Bank & Trust Co. **118 West 47th Street** **Kansas City, MO 64112** **Contact:** James A. Deberry/V.P. & S.T.O. 816/756-2500	0	6	0	$2	$8	$10
	Services Provided: Portfolio analysis, portfolio review, benefit disbursement					
RepublicBank Dallas, N.A. **P.O. Box 241** **Dallas, TX 75221** **Contact:** David J. Pittman/V.P. & T.O. 214/653-6506	160 (combined)		$3,500 (combined)		$500	$6,000
	Services Provided: Performance measurement, portfolio analysis, portfolio review, participant recordkeeping, ERISA disclosure assistance, benefit disbursement, securities lending, options processing, cash forecasting, TUCS, asset allocation service, automated data transmission					
Richfield Bank & Trust Co. **6625 Lyndale Avenue** **Minneapolis, MN 55423** **Contact:** Jill Edelstein/E.B.O. 612/861-7355	2	150	$5	$35	$5	$55
	Services Provided: Portfolio analysis, portfolio review, participant recordkeeping, ERISA disclosure assistance, benefit disbursement, hard asset storage					

<table>
<tr><th>Number of Separate Portfolios Maintained</th><th>Average Number of Accounts per Account Supervisor</th><th>Average Number of Accounts per Investment Mgr. Contact</th><th>Accounting System Utilized</th><th>Fail Float Credit</th><th>Short-Term Instruments Used</th><th>Date Interest on Short-Term Fund Credited</th><th>Timeliness of Reporting Package</th></tr>
<tr><td>115</td><td>115</td><td>115</td><td>Contractual settlement date (pay), actual delivery date (sell)</td><td>Not reported</td><td>Federated</td><td>10th business day of following month</td><td>On demand</td></tr>
<tr><td colspan="8">Crediting Dividend and Interest Policy: Credited directly to account on pay date plus one.
Fee Structure: Based on combination of asset value and individual services performed.</td></tr>
<tr><td>534</td><td>7-8 (master trusts)</td><td>38</td><td>Trade date full accrual (reporting), settlement date (accounting)</td><td>Yes</td><td>STIF</td><td>3rd business day following month-end</td><td>3-5 business days following month-end</td></tr>
<tr><td colspan="8">Crediting Dividend and Interest Policy: Clearinghouse funds on payable date.
Fee Structure: Based on combination of asset value and individual services performed.</td></tr>
<tr><td>122</td><td>15</td><td>3</td><td>Contractual settlement date with pending adjustment</td><td>No</td><td>In-house STIF</td><td>4th business day following month-end</td><td>Transaction detail 2 days following reporting date, asset statement in 10 days</td></tr>
<tr><td colspan="8">Crediting Dividend and Interest Policy: Available for investment on payment date plus one.
Fee Structure: Based on combination of asset value and individual services performed.</td></tr>
<tr><td>6</td><td>Not reported</td><td>Not reported</td><td>Actual delivery date</td><td>No</td><td>Federated</td><td>5th of month</td><td>Not reported</td></tr>
<tr><td colspan="8">Crediting Dividend and Interest Policy: On payable date.
Fee Structure: Based on combination of asset value and individual services performed.</td></tr>
<tr><td>114</td><td>Not exceeding 10</td><td>15</td><td>Trade date full accrual, contractual settlement date with pending adjustment, contractual settlement date, actual delivery date</td><td>Yes</td><td>STIF, commercial paper, repos, Eurodollars, T-bills, master notes</td><td>First business day following month-end</td><td>5 business days following report date</td></tr>
<tr><td colspan="8">Crediting Dividend and Interest Policy: Federal funds on payable date.
Fee Structure: Based on combination of asset value and individual services performed.</td></tr>
<tr><td>150</td><td>40</td><td>Not reported</td><td>Actual delivery date</td><td>No</td><td>Choice of 4 money market funds</td><td>2nd of month</td><td>Daily</td></tr>
<tr><td colspan="8">Crediting Dividend and Interest Policy: As received.
Fee Structure: Based on combination of asset value and individual services performed.</td></tr>
</table>

Name and Address of Bank	Number of Separate Master Trust Clients	Number of Directed Trust Clients	Master Trust Assets (in millions)	Directed Trust Assets (in millions)	Custodial Employee Benefit Assets (in millions)	Total Employee Benefit Assets (in millions)
St. Louis Union Trust Co. **510 Locust Street** **St. Louis, MO 63101** **Contact:** James R. Janetz/ Nat'l Pension Dev. 314/231-9300	6	24	$422	$179	$268	$2,900
	Services Provided: Performance measurement, portfolio analysis, portfolio review, participant recordkeeping, ERISA disclosure assistance, benefit disbursement, index fund, TUCS					
Seattle Trust and Savings Bank **804 Second Avenue** **Seattle, WA 98104** **Contact:** John T. Garland/V.P. 206/223-2030	0	175	0	$21.6	$7.4	$127
	Services Provided: Performance measurement, portfolio analysis, portfolio review, participant recordkeeping, ERISA disclosure assistance, benefit disbursement					
Simmons First National Bank **P.O. Box 7009** **Pine Bluff, AR 71611** **Contact:** J. W. Eaton/T.O. 501/541-1107	1	10	$2.3	$2.0	0	$30
	Services Provided: Performance measurement, portfolio analysis, portfolio review, participant recordkeeping, benefit disbursement, consulting and employee communications					
Southeast National Bank of Pennsylvania **P.O. Box 417** **West Chester, PA 19380** **Contact:** Frank L. Casey/T.O. 215/436-7772	0	4	0	$35	$55	$90
	Services Provided: Performance measurement, portfolio analysis, portfolio review, participant recordkeeping, ERISA disclosure assistance, benefit disbursement					
State Street Bank and Trust Co. **P.O. Box 351** **Boston, MA 02101** **Contact:** J. D. Nelson/V.P. 617/786-6492	55	3	$19,000	$1,000	$200	$1,900
	Services Provided: Performance measurement, portfolio analysis, portfolio review, participant recordkeeping, ERISA disclosure assistance, benefit disbursement, index fund, market inventory fund					
The Sumitomo Bank of California **Trust Department** **365 California Street** **San Francisco, CA 94104** **Contact:** Bob R. Otani/V.P. & Mgr., Trust 415/445-8090	0	400	0	$78	$35	$113
	Services Provided: Performance measurement, portfolio analysis, portfolio review, ERISA disclosure assistance, benefit disbursement					
Texas Commerce Bank **P.O. Box 2558** **Houston, TX 77001** **Contact:** Russell K. Schulze, II/S.V.P. 713/236-5788	5	20	$585	$475 (ERISA manager)	$2,600*	$2,800
	Services Provided: Performance measurement, portfolio analysis, portfolio review, participant recordkeeping, benefit disbursement *Includes master and directed trust assets.					

Number of Separate Portfolios Maintained	Average Number of Accounts per Account Supervisor	Average Number of Accounts per Investment Mgr. Contact	Accounting System Utilized	Fail Float Credit	Short-Term Instruments Used	Date Interest on Short-Term Fund Credited	Timeliness of Reporting Package
48	6	6	Contractual settlement date	Yes	STIF	2nd business day after month-end	Monthly statements — no later than 7th following business day; quarterly reports by 14th business day; annual report by 30th following business day
Crediting Dividend and Interest Policy: Credited to account on payment day, with principal and income cash balances automatically reinvested daily through STIF.							
Fee Structure: Based on combination of asset value and individual services performed.							
175	35	35	Trade date full accrual (buys), actual delivery date (sells)	Not reported	Money market funds and open notes	Day in/day out	Not reported
Crediting Dividend and Interest Policy: Night post on payable date.							
Fee Structure: Based on combination of asset value and individual services performed.							
180	195	180	Trade date full accrual	No	Federated, money market trust, temporary fund (TIF), U.S. short-term obligations	First of each month	15 days following accounting date
Crediting Dividend and Interest Policy: On accrual.							
Fee Structure: Based on combination of asset value and individual services performed.							
110	75	35	Trade date full accrual	Not reported	Temporary investment fund (TIF), repos	Monthly	2 weeks
Crediting Dividend and Interest Policy: On due date.							
Fee Structure: Based on asset value only.							
450	5	3	Trade date full accrual	Yes	State Street STIF	Month-end	2-7 business days
Crediting Dividend and Interest Policy: Good funds when received.							
Fee Structure: Based on combination of asset value and individual services performed.							
400	100	100	Actual delivery date	Yes	Dreyfus money market instruments fund	Month-end	7-21 days
Crediting Dividend and Interest Policy: Direct credit to account when received.							
Fee Structure: Based on combination of asset value and individual services performed.							
110	25	3 per outside manager	Actual delivery date	Fail float anticipation	Primarily master notes	Month-end	10 business days following month-end
Crediting Dividend and Interest Policy: Automatically credited to account on payable date plus one.							
Fee Structure: Based on combination of asset value and individual services performed or flat quote.							

<table>
<tr><th>Name and Address of Bank</th><th>Number of Separate Master Trust Clients</th><th>Number of Directed Trust Clients</th><th>Master Trust Assets (in millions)</th><th>Directed Trust Assets (in millions)</th><th>Custodial Employee Benefit Assets (in millions)</th><th>Total Employee Benefit Assets (in millions)</th></tr>
<tr><td rowspan="2">Union Trust Co.
205 Church Street
New Haven, CT 06510
Contact: John Davies/V.P.
203/497-4398</td><td>6</td><td>16</td><td>$84.2</td><td>$90.2*</td><td>$0</td><td>$216.6</td></tr>
<tr><td colspan="6">Services Provided: Performance measurement, portfolio analysis, portfolio review, participant recordkeeping, ERISA disclosure assistance, benefit disbursement, Frank Russell Investment Co. funds
*Includes $75 million of master trust assets.</td></tr>
<tr><td rowspan="2">United States Trust Co. of New York
45 Wall Street
New York, NY 10005
Contact: Richard Smith/V.P., Robert Pagano/A.V.P.
212/425-4500</td><td>11</td><td>58</td><td>$1,200</td><td>$1,800</td><td>$2,000</td><td>$5,000</td></tr>
<tr><td colspan="6">Services Provided: Performance measurement, portfolio analysis, portfolio review, participant recordkeeping, ERISA disclosure assistance, benefit disbursement, portfolio characteristics, asset allocation, risk measurement, securities lending</td></tr>
<tr><td rowspan="2">Virginia National Bank
P.O. Box 3000
Norfolk, VA 23514
Contact: James G. Miller/V.P. & T.O.
804/441-4064</td><td>1</td><td>6</td><td>$36.1</td><td>$39.8</td><td>$12.9</td><td>$221.0</td></tr>
<tr><td colspan="6">Services Provided: Performance measurement, portfolio analysis, portfolio review, participant recordkeeping, ERISA disclosure assistance, benefit disbursement</td></tr>
<tr><td rowspan="2">Wachovia Bank & Trust Co., N.A.
P.O. Box 3099
Winston-Salem, NC 27102
Contact: Jane B. Fisher/V.P.
919/748-6348</td><td>27</td><td>41</td><td>$5,200</td><td>$250</td><td>$100</td><td>$6,600</td></tr>
<tr><td colspan="6">Services Provided: Performance measurement, portfolio analysis, portfolio review, participant recordkeeping, ERISA disclosure assistance, benefit disbursement, index fund, foreign custody service, options, securities lending</td></tr>
<tr><td rowspan="2">Wells Fargo Investment Advisors, a Division of Wells Fargo Bank, N.A.
475 Sansome Street
San Francisco, CA 94163
Contact: Roberta P. Lyon/V.P. & T.O.
415/396-5561</td><td>55</td><td>927</td><td>$3,703</td><td>$1,957</td><td>$1,269</td><td>$6,929</td></tr>
<tr><td colspan="6">Services Provided: Performance measurement, portfolio analysis, portfolio review, participant recordkeeping, ERISA disclosure assistance, benefit disbursement, index fund, market inventory fund, international market fund, value added equity fund, yield tilt™ market fund, real estate equity fund, asset allocation, multiple manager evaluation, portfolio structuring, risk measurement and control, securities lending, on-line master manager™ service</td></tr>
<tr><td rowspan="2">Wilmington Trust Co.
10th and Market Streets
Wilmington, DE 19899
Contact: Robert B. Landon/V.P.
302/428-7317</td><td>6</td><td>59</td><td>$100</td><td>$4,803</td><td>$110</td><td>$5,013</td></tr>
<tr><td colspan="6">Services Provided: Performance measurement, portfolio analysis, portfolio review, participant recordkeeping, ERISA disclosure assistance, benefit disbursement</td></tr>
</table>

Number of Separate Portfolios Maintained	Average Number of Accounts per Account Supervisor	Average Number of Accounts per Investment Mgr. Contact	Accounting System Utilized	Fail Float Credit	Short-Term Instruments Used	Date Interest on Short-Term Fund Credited	Timeliness of Reporting Package
31	10	10	Contractual delivery date	No	STIF, variable amount notes, commercial paper	5th of month	6th business day

Crediting Dividend and Interest Policy: Cash posting on payable date.
Fee Structure: Based on combination of asset value and individual services performed.

114	7-10	20	Actual delivery date	Yes	STIF, master notes	3 business days following month-end	3-15 business days

Crediting Dividend and Interest Policy: Credited to account on payable date.
Fee Structure: Based on combination of asset value and individual services performed.

16	100	31	Trade date full accrual	No	Daily income fund (DIF)	By 3rd business day of following month	2nd business day for priority account; 6th business day for standard accounts; daily for cash management

Crediting Dividend and Interest Policy: In Federal funds on payable date.
Fee Structure: Based on combination of asset value and individual services performed.

180	5	12	Contractual settlement date with pending adjustment	Yes	Pooled STIF, demand notes	First of month	10 business days

Crediting Dividend and Interest Policy: In Federal funds on payable date.
Fee Structure: Based on combination of asset value and individual services performed.

271	10-20	10-20	Trade date full accrual, contractual settlement date	Yes	STIF, master notes, CD's, direct placement commercial paper	STIF — month-end, others — payable date	10 days; monthly, quarterly, and/or annually with interim reports on a request basis on any day

Crediting Dividend and Interest Policy: Automatically credited on payable date.
Fee Structure: Based on combination of asset value and individual services performed.

221	15	20	Contractual settlement date	If requested	In-house master notes, short-term market instruments	Monthly and at maturity	Monthly

Crediting Dividend and Interest Policy: Credited to account on payable date if in bank's nominee name or bearer, when actually received if in customer's name.
Fee Structure: Base fee computed on market value of account with additional charge for individual services performed.

FEBRUARY 1982

Pension World

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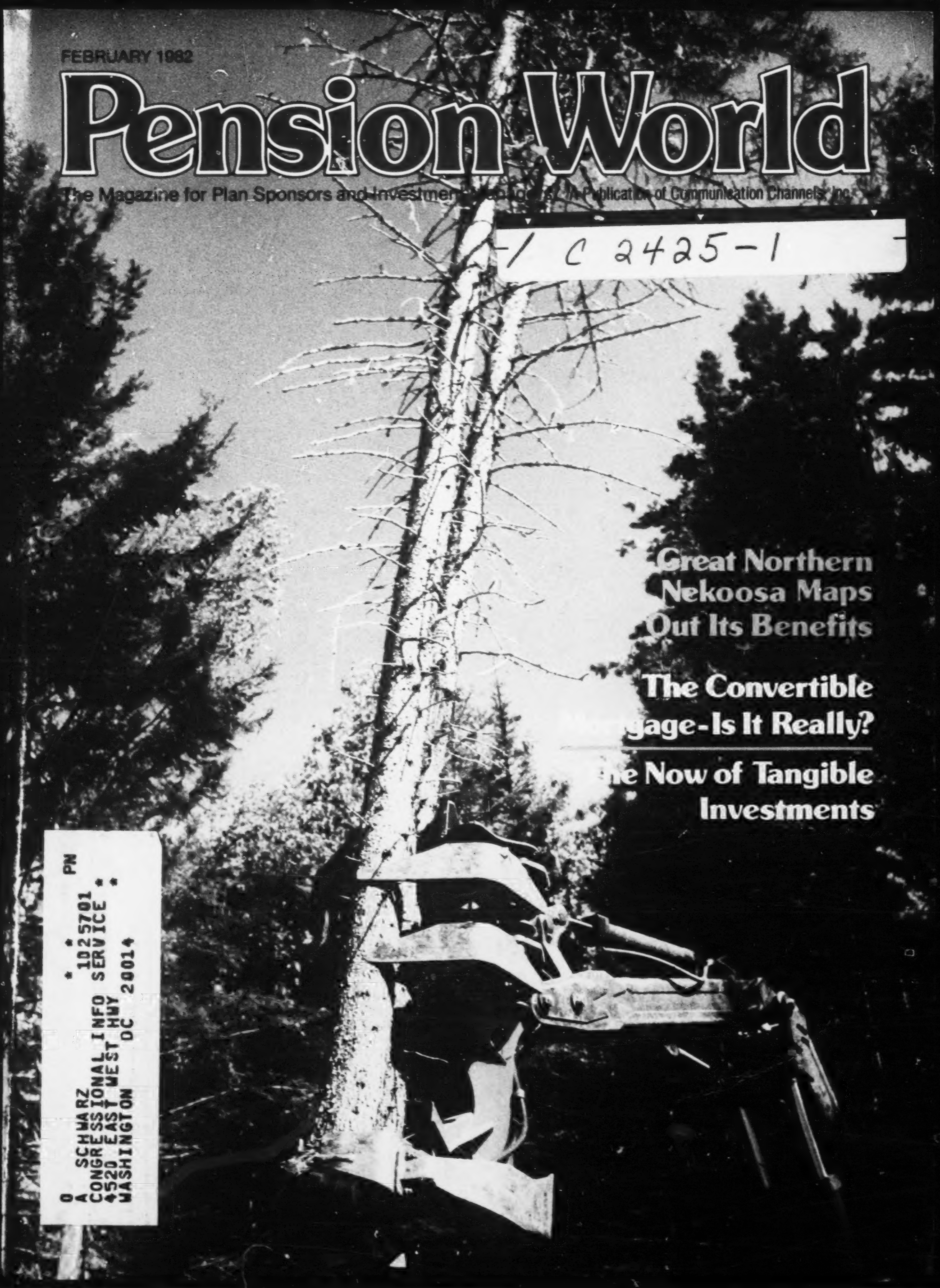

Great Northern Nekoosa Maps Out Its Benefits

The Convertible gage-Is It Really?

he Now of Tangible Investments

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A SCHWARZ 1025701
CONGRESSIONAL INFO SERVICE *
4520 EAST WEST HWY *
WASHINGTON DC 20014

Pension World

February 1982
Volume 18 Number 2

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Pension World Basics: Pension law reference and research tools by Allen C. Story **53**
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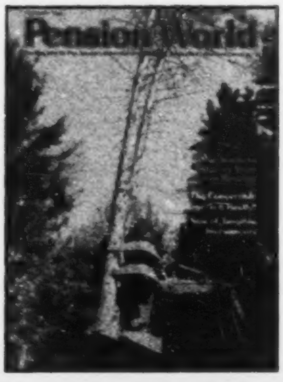

Cover: **Great Northern Nekoosa Corp.'s automatic tree harvesting operation in Millinocket, Maine, is as effective as its benefits program. How the firm operates its benefits plans begins on page 14.**

BPA
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Investment-grade stamps—suitable for pension plans?

Slowly, the need for new investment opportunities is being recognized, and innovative products are being considered and, in a few cases, have already been developed. This article discusses a very narrow aspect and usage of the emerging nontraditional investment environment — acquisition of investment-grade U.S. postage stamps for employee benefit plans.

Let it be stated initially that the purchase of stamps (or any other tangible asset) is not advocated as a replacement for traditional assets. Financial portfolios utilizing a combination of stocks, bonds, insurance, and cash equivalents are the backbone of any well-administered employee benefit plan. Tangibles, such as rare stamps, should be considered only as a supplement to traditional investments, and then only in accounts where such investments fit the philosophy of plan decision-makers. The purchase of stamps should be purely an economic decision based upon suitability after considering plan objectives. The following represents a case for considering the use of investment-grade stamps in qualified plans. The risks are also discussed, as well as the means for overcoming obstacles posed by such an investment.

The following factors constitute an ideal investment for any qualified plan:

1. The investment should produce a long-term return or increase in value at a rate exceeding the rate of inflation.
2. Return or income should preferably be consistent, not subject to wide fluctuations during economic cycles that could result in unfavorable timing should a sale be necessary for distribution of plan assets.
3. The supply of the investment assets should be fixed or limited.
4. The asset should be portable or easily managed so that overseeing the investment does not become a problem.
5. The tax effect of owning the investment should be favorable, not disadvantageous.
6. The asset should be readily salable.
7. There should be a consistent means of determining the value of the asset.

How do stamp investments fit in with these factors?

by **PAUL D. KADAVY**
Executive Vice President
First Northwestern Trust of Nebraska
Omaha, Nebr.

Exceeding the inflation rate

Salomon Brothers, the nation's largest investment banking house, has published an annual survey for the past five years which compares the relative performance of tangible and financial assets (Table I). This survey has shown each year, for five- and 10-year investment commitments, that tangible assets have consistently outperformed financial assets and the Consumer Price Index (CPI). Rare stamps have been one of the top assets in all time periods in each survey.

To determine these increases for stamps, Salomon Brothers has used values as listed in the *Scott United States Stamp Catalog.* Certainly any knowledgeable philatelist would admit that these catalog values bear little reality to the prices of investment-grade stamps. Many of the higher quality stamps (those rated very fine and extremely fine) would sell for some multiple of the Scott Catalog value. Nonetheless, the year-to-year changes in Scott Catalog prices paint a rather accurate picture of the trends in individual stamp growth rates and of the stamp market in general.

All 1979-82 catalog values for stamps issued in the United States between 1847 (the first issue) and 1920 (generally considered to be the latest date for investment quality stamp issues) were entered into a computer. All stamps with a 1982 catalog value under $10 were eliminated. Table II shows the results of a data search by annual compound increase in value. Impressive as these are, knowledgeable philatelists generally agree that stamps in the finest condition increase at a rate greater than these catalog values.

It should be pointed out that many of those stamps that show a compound annual increase of 0 to 9 percent are stamps of extremely high value that are so rare they have not traded between valuation periods. Thus, the cataloger has no basis upon which to value the item higher. If such an item does come up for sale, however, it would typically show a huge increase in value in the catalog year in which the sale price became known.

Consistent return

As we all know, both the stock and bond markets have endured dramatic fluctuations during economic cycles over the years. Many plan participants have suffered as a result of taking a substantial distribution during a market bottom. Although stamp and other tangible markets experience periods of slowdown and, in some cases, decline, the *Scott U.S. StampIndex* (published quarterly) graphically represents the stability of the growth in stamp values over a period of years. This graph (Table III) represents the increase in value of a group of "prime investment quality" stamps as selected by the Scott

Table I Compound Annual Rates of Return

	10 Years	Rank	5 Years	Rank	1 Year	Rank
Oil	30.8%	1	20.9%	5	14.3%	6
Gold	28.0	2	30.7	3	−13.9	14
Oriental Carpets	27.3	3	20.9	6	−0.2	11
U.S. Coins	27.1	4	29.7	4	−8.0	12
U.S. Stamps	23.5	5	32.9	1	18.0	4
Chinese Ceramics	22.9	6	30.7	2	36.5	1
Silver	21.5	7	20.1	7	−26.6	16
Rare Books	16.8	8	13.8	11	18.0	5
Old Masters	15.4	9	16.8	9	22.9	3
Farmland	14.6	10	14.8	10	9.7	8
Diamonds	14.5	11	16.9	8	0.0	10
Housing	10.3	12	11.6	12	8.1	9
CPI	8.3	13	9.7	14	10.0	7
Stocks	5.8	14	9.8	13	25.3	2
Foreign Exchange	5.3	15	3.1	15	−17.3	15
Bonds	3.8	16	1.1	16	−9.6	13

All returns for the period ending June 1, 1981, based on latest available data.

Source: Salomon Brothers

staff. Certainly the broad and ever increasing collector base has been the key factor in maintaining a stable market. Also, there is very little leveraged buying done in stamps, which tends to reduce the dramatic up and down periods that occur with margin purchases of stocks.

Limited or fixed supply

This is an economic fundamental. The interrelationship between supply and demand is the obvious factor that governs price. In theory, the financial markets could issue an infinite amount of securities. The Federal government has shown a propensity to do this with debt securities. No end is in sight, with Federal deficits projected by the Administration to exceed $100 billion per year through fiscal 1984. Thus, with such a large supply of Treasury securities, an incredible demand will be necessary in order to support this supply.

The extent of this supply/demand ratio has implications for all financial markets. There is an absolutely fixed supply of investment-grade stamps. In fact, there is a slightly declining supply due to the fact that some items are sure to be lost, damaged, burned or mishandled with the passage of time. A range of the total supply of truly investment-grade U.S. stamps would be between $200-400 million. Of this supply, probably 20 percent ($60 million) changes hands annually through auction or private sale. By contrast, the New York Stock Exchange handles on average about 40 million shares with a value of slightly over $1¼ billion *per day*. The commodities market is many times larger. Certainly the total demand for these financial assets is incredibly large compared with the demand for rare stamps. But even if a small fraction of 1 percent of these dollars spent in the traditional marketplaces should be transferred over time to the stamp market, the implications are obvious — substantially increasing stamp prices due to the fixed supply.

Asset portability

This does not mean the ability to grab what you have and flee the country in the wake of an enemy invasion. Yet there are many true stories of people using rare stamps, art, coins, gold, diamonds, etc., to buy their way out of tyranny (i.e., Nazi Germany, Vietnam) or to allow for easy transfer of assets to a new destination. The concern here is simply the ability to move assets physically in a society that tends to be very mobile. Direct ownership of investment real estate, for example, could cause a problem for the investor. Portability would not likely be a problem, however, in employee benefit plan administration.

Tax effect

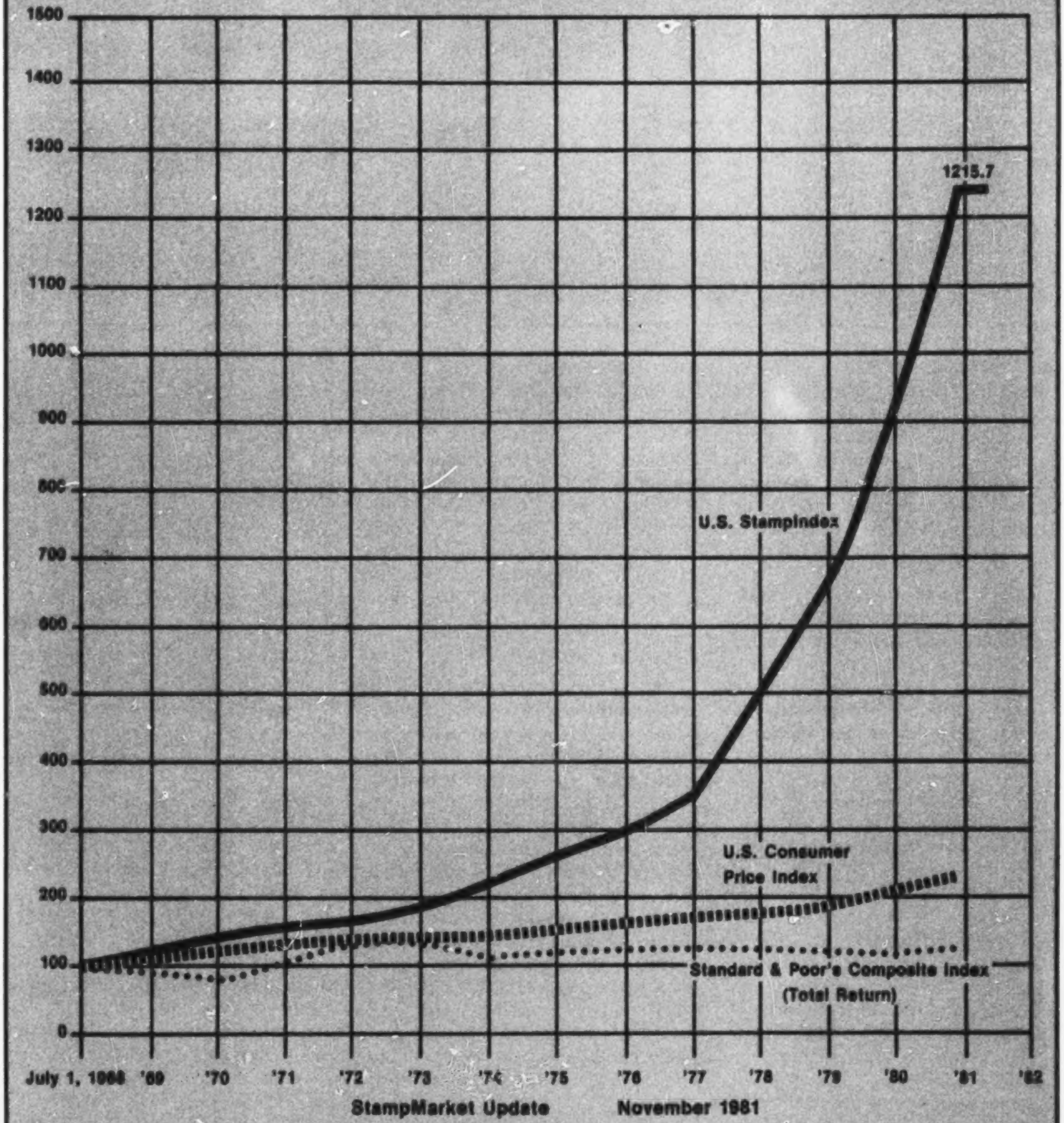
The tax effect of personal ownership of stamps is obvious. There is no current income tax since there is no current income. This would be a real advantage to the wealthy investor in a high tax bracket who does not need current income for cash flow from all assets. Gains (after one year) would be taxed a capital gains rate at the time the investor chooses to liquidate. In employee benefit accounts, the tax effect for stamps is the same as for any other asset. There is no income tax consequence until distribution is made from the plan. The recipient would then declare the distributions as ordinary income.

Table II
Compound Growth

Number of Stamps	Average Annual Compound Growth In Catalog Value
2	Over 80%
3	70-79%
4	60-69%
26	50-59%
51	40-49%
63	35-39%
132	30-34%
187	25-29%
207	20-24%
174	15-19%
73	10-14%
40	5- 9%
9	0- 4%

Special mention should be made of section 314(b) of the Economic Recovery Tax Act of 1981. This section provides for unfavorable tax treatment for "collectible" assets purchased in individually directed qualified plans. After December 31, 1981, any such purchases are treated as a distribution in an amount equal to the cost of the asset. Stamps are specifically included in the definition. Hearings were held on December 4, 1981, in Congress concerning possible repeal of this provision. Although I have heard some optimism, many people associated with tangible assets feel that more lobbying will be necessary and that early repeal is unlikely.

Table III
The Scott U.S. Stampindex™



Source: Scott Publishing Co., New York, N.Y.

It is interesting to note that Congress placed no restriction on fiduciaries if they are willing to exercise discretion to purchase tangible assets in qualified plans. It is also interesting that two government agencies, the Treasury Department and the Department of Labor, are apparently at odds on their positions regarding the usage of tangibles in such plans. The Bureau of National Affairs' *Daily Tax Report* (August 11, 1981) reported: "According to sources at the Treasury Department which knew of the change [section 314(b)] in advance and didn't object to it, professional pension managers are more neutral and less emotional in making investment decisions. They also tend to be skeptical of speculative investments in collectibles because of the risks that come with that kind of asset."

On the other hand, the DOL

1982: The year for rare stamps and coins?

According to one financial expert who specializes in rare stamps and coins, 1982 will prove a bonanza year for investment in these commodities.

"The year 1982 will go down in history as a tremendous opportunity for investments in rare stamps and coins, because today's investors will be buying close to the bottom of the market," says George Manter, president of Financial Investment Rarities, Inc., a Ft. Lauderdale, Fla., firm that acts as a professional agent and broker for philatelic and numismatic investments for pension plans and trusts.

Manter's reason for believing the market in these collectibles is at bottom now is that prices of gold and silver bullion are depressed, and, according to him, a direct correlation exists between these prices and the prices of rare stamps and coins. Manter says gold and silver prices affect investors' psyches, and with collectibles, as with other investments, the time to buy is when the market is down.

When shopping for rare stamps and coins, the three most important characteristics are quality, rarity, and price, in that order; but Manter says that all three are necessary for a good investment for a pension plan. "Quality is obviously the most important," he acknowledges, "but if the quality is too high, the price will be so high that you'll never be able to make a profit."

According to the tangibles expert, "blue chip" rare stamps have appreciated historically at an annual rate of 30 percent, while investments in rare coins have appreciated at a rate of 26.7 percent a year. Manter recommends buying rare stamps and coins as supplements to the pension portfolio, rather than as substitutes for other assets.

Three to five years is the minimum holding period before liquidating a portfolio of rare stamps or coins, but even longer is better, Manter advises. "Which is why now is a good time to buy," he says. "The time is today."

opened the door to tangibles in its ruling, which was published in the *Federal Register* (Vol. 44, No. 124) on June 26, 1979. In part, the rules state:

> The Department is of the opinion that generally the relative riskiness of a specific investment or investment course of action does not render such investment or investment course of action *per se* prudent or *per se* imprudent.

Salability

One of the principal concerns people have about investing in tangible assets has to do with resale. Things that seem easy to buy somehow do not seem as easy to sell. As far as the stamp market is concerned, few people realize the extent of sources available for sale of philatelic material. For investment-grade stamps, the principal source would be major auction houses or substantial dealers who are reliable experts in their field. A stamp auction is going on somewhere in the United States almost every day through over 80 auction houses. A dozen or so of these could be classified as major auction houses with whom a stamp investor would likely be dealing whether buying or selling.

The most reputable houses represent the true market for the stamp business and provide a valuable resource for measuring pricing levels of stamps of all grades and condition. For investors concerned about liquidity, many auction houses will advance up to 60 percent of the expected net sale realization to the consignor immediately upon delivery. The balance would typically be paid within 30 to 45 days following the auction. Most major dealers are willing to pay in full immediately for valuable material.

Valuation

As pointed out earlier, although Scott Catalog values are a good indicator of year-to-year trends in stamp prices, they seldom reveal the market price of any specific stamp since Scott quotes prices for stamps in fine condition that have been hinged. Stamp investors should always insist on items of higher quality. Thus, the price paid initially and realized upon sale will almost always be higher than catalog values.

The best sources for valuation are knowledgeable philatelists who deal in rare stamps as a full-time career and price realizations from auction houses. The latter is perhaps less desirable since, unless the item at auction was examined by a knowledgeable person, there is no way of knowing if the auction describer wrote an accurate description of that item. Although total accuracy in valuations would be impossible, a narrow range of values, as in a real estate appraisal, can be obtained at reasonable cost.

Coping with risk

Investing in the stamp market is certainly not without risk. Those risks, however, are entirely different than the risks fiduciaries normally concern themselves with. A stamp investor has things to think about that portfolio managers of stocks or bonds have never heard of. How well the stamp is centered, the condition of the gum, whether repairs have been made, whether other faults exist, the condition of the perforations, the depth of the color, and many other factors can make the purchase price either a steal or highway robbery. *Caveat emptor* applies in these transactions, so unless the buyer has personal capabilities in philatelic matters, great reliance must be placed on someone else.

A trust institution desirous of utilizing such an investment should be capable of seeking out reliable sources of advice for acquiring investment-grade material at a market price. Much caution should be

Table IV Value of $100,000 Invested in Tangible and Financial Assets for 10 and 5 Years[1]

A $100,000 Investment In —	Realized a Compounded Annual Growth of (%) for the Past 10 Years and a Value After All Commissions of —	Realized a Compounded Annual Growth of (%) for the Past 5 Years and a Value After All Commissions of —
U.S. Stamps	[2](21.8%) $575,000	[2](31.0%) $309,000
U.S. Coins	(16.0%) $353,000	(21.9%) $215,000
Diamonds	(15.1%) $331,000	(18.3%) $188,000
U.S. Farmland	(12.6%) $311,000	(13.4%) $178,000
Stocks	(6.8%) $187,000	(6.4%) $132,000
Bonds	(6.4%) $186,000	(5.8%) $133,000

[1] Does not consider tax consequences.

[2] Source for percentages: Salomon Brothers, 1980.

exercised, however. Some "investment advisors," for example, tout the purchase of recent issue plate number blocks for investment. In actuality, however, almost without exception, plate blocks issued since 1935 can be purchased in quantity at stamp auctions for less than they originally sold for at the Post Office. A similar problem exists for recent issues of first-day covers. The investor should recognize that with few exceptions stamps issued after 1920 have either limited or no growth potential.

In addition to buying only those issues that have growth potential due to collector/investor demand and quantity issued, it is essential that any fiduciary making stamp investments purchase only the highest quality material obtainable for its accounts. In the past year we have seen softening in the tangible markets due largely to high interest rates. High quality items in the stamp market have continued to fare well during this period of time, whereas off-grade and average materials have experienced significant declines.

The philatelic world also has its fakes, forgeries, and frauds. Fortunately, expert committees, such as the Philatelic Foundation in New York, will examine philatelic material for a fee and will issue a certificate of authenticity for each item found to be genuine. This certificate is not a guarantee, but it is univerally accepted as the final authority.

Employee benefit plans are long-term investors. This fits in well with a key requirement in philatelic investing. To have a reasonable opportunity to outperform financial assets, a minimum five-year holding period commitment is essential. The initial costs involved in acquiring philatelic material are substantial compared to stocks or bonds. At most stamp auctions, a 10 percent premium is paid by the buyer. In addition, there would often be expertization costs, agent fees, or dealer markups. The total acquisition cost could easily add 20 percent or more to the purchase price. In spite of these costs, returns over five- and 10-year periods in stamps and other tangibles have been impressive. Table IV shows these returns after considering all estimated costs of acquisition and liquidation.

Without any question, numerous obstacles must be overcome before the trust industry accepts investing in rare stamps and other tangibles as a common practice. If in-house expertise is unavailable (as is almost always the case), it seems we should be in a strong position to identify the true experts and professionals with whom we could deal in confidence. Many of us rely now on outside services for traditional investment advice.

Some corporate fiduciaries are concerned that tangibles do not produce income. If current income is not really needed, wouldn't the customer be better served by supplementing a traditional portfolio with an investment that has demonstrated the ability to outperform inflation? And in an employee benefit plan, if adequate liquidity is maintained to provide for anticipated payouts to eligible employees, is income even a factor when total return is the obvious consideration?

With an increasing amount of money flowing into tangible assets, questions are often raised about how much of an influx of funds these markets can absorb. As indicated previously, perhaps $60 million of investment-grade U.S. stamps change hands annually. Twenty million dollars could not be invested at one time in this market with the expectation of maintaining any kind of order. It has to be recognized that the usage of stamps as investments must be restricted to those accounts of such size in which a suitable commitment can be reasonably made. In the case of a pension or profit-sharing plan, for example, an investment of up to 10 percent of total plan assets might be appropriate.

Future value

Past performance does not necessarily predict the future. The future increases of stamp values are very much dependent upon the rate of inflation and economic uncertainties. Much of the flow of funds from financial to tangible assets in past years is directly attributable to this uncertainty, led principally by increases in the cost of living.

There is no consensus about the economic future, but educated guesses can be of value. In its *Survey of Economic and Capital Market Expectations,* Peat, Marwick, Mitchell & Co. published financial and economic indicators based upon data received by those responsible for developing economic forecasts or investment policies at 26 leading financial institutions and investment organizations in the United States. The average expectation among these major institutions was that the Consumer Price Index would increase at a compound annual rate of 8.6 percent from 1982 through 1987 and 6.8 percent from 1990 through 2000. A few years ago many economists were saying that this country could not indefinitely survive a 6 percent rate of inflation.

To date, trust institutions have not been willing to commit employee benefit funds to stamps and other tangibles due to perceived risks, obstacles, and a lack of knowledge. For those willing to study in detail the ways of safely entering such a marketplace, the rewards may prove to be gratifying for both the institution and the customer. ☐

MARCH 1982

Pension World

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Diamond Shamrock's In-House Strategy

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Computers In Employee Benefits

The IRS-Its Impact On Pension Funds

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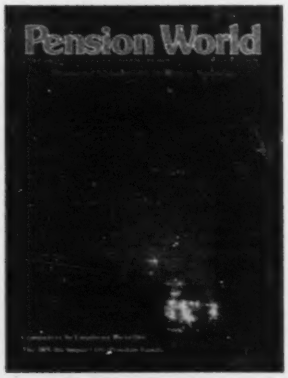

Cover: **Diamond Shamrock Tower stands dramatically against the Dallas sky. In the past year, the company's pension fund management has proven itself equally bold, as related in the story beginning on page 19.**

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International Pension World

West Germany — Is the world's oldest social security system approaching a crisis?

A combination of factors is increasing the social security system's cost to West German taxpayers and may threaten its solvency.

Approximately one hundred years ago, Otto von Bismark, in his desire to maintain a monarchial, militaristic regime and to take the wind out of the sails of the Socialists, inaugurated the world's first state run old-age system. Social security has spread since then, and it is causing problems in many nations — including the country of its origin, West Germany.

The social security system for West Germany provides pension, hospital-medical, sickness-maternity, unemployment, and workers' compensation benefits, and family allowances. Table I shows current contribution rates for various benefits within the social security system. Coverage is compulsory for virtually all people in private employment.

Old-age pensions are based on a formula that takes into account the employee's earnings subject to social security over his or her entire working career, adjusted by the change in the national average earnings up to a point close to retirement. The end result is that most old-age pensions currently granted for those with above-average earnings fall within the range of 40 to 45 percent of final gross earnings up to the contribution limit; for those with average or below earnings, the range is up to 55 percent. Pensions in payment are adjusted each year.

Germany's economic scenario

A combination of factors, i.e., longer life expectancy, oil-induced economic recession, and the labor courts' generosity in mandating changes, is expected to increase the social security system's cost to West German taxpayers and may threaten its long-term solvency.

West Germany, a model of stability for three decades, is suffering from growing economic and political frustrations. Foreigners often look at Germany's current economic sluggishness and its protests and see only minor detours in a phenomenal postwar success story. However, many Germans think that unemployment and slow growth could plague the nation for much of this decade. Some even fear that Germany's famed industrial position could slip permanently. Postwar Germany has felt pressures in the past; but this time economic and political troubles are hitting simultaneously, and pessimism has grown.

For all the concern, Germany's problems seem small by international comparison. The consumer price inflation rate is under 7 percent, and unemployment is under 6 percent. The real Gross National Product (GNP), which increased by 5.6 percent and .2 percent in the two halves of 1980, declined by 1 percent in 1981. Leading German economic institutes predict that the economy will grow by only 1 percent in 1982.

The level of industrial production and use of capacity are low, and company profits are being squeezed. However, there are major qualifications to this discouraging picture. The biggest factor is that West Germany's economic success depends as much on what happens in the U.S. as it does on decisions taken in Bonn or by the Bundesbank in Frankfurt. A German export growth could brake an economic downturn.

Social security solvency

Despite assurances by Chancellor Helmut Schmidt in the 1976 election campaign that West Germany's social security system was sound, the government was forced, not long after it won the election, to make changes in the system that brought calls from the opposition Christian Democrats for Schmidt's resignation.

The heart of the social security problem goes back to a 1957 law that linked old-age benefits to increases in the country's gross wage level. During the 1970's, the indexing system led to increases that averaged 10 percent a year at a time when inflation was only about 3 percent per annum.

In an attempt to reduce pressure, the government slowed increases in retirement benefits from 1979 to 1981. Instead of increases adjusted

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Table I Current Contribution Rates

	% Contribution Rate			Maximum Annual Earnings Subject to Contributions
	Employee	Employer	Total	
Old-Age, Invalidity, and Survivor Pensions	9.0%	9.0%	18.0%	D.M. 56,400 (U.S. $24,835)
Sickness, Maternity, Hospital, and Medical Benefits	6.0[1]	6.0[1]	12.0[1]	D.M. 42,300 (U.S. $18,626)
Unemployment	2.0	2.0	4.0	D.M. 56,400 (U.S. $24,835)
Occupational Injury and Disease	—	1.8[2]	1.8[2]	D.M. 72,000** (U.S. $31,704)
Totals (subject to earnings limits)	17.0%	18.8%	35.8%	

[1] Average rates are indicated. For health insurance, the contribution rates vary from 5 to 6 percent, according to the fund.

[2] The contribution rate and ceiling for occupational injury and disease vary by industry. The rate ranges from .7 to 2 percent of covered earnings. The contribution ceiling is typically DM 60,000, but some are as high as DM 84,000 per year.

SAN BERNARDINO COUNTY CHOSE GRUBB & ELLIS TO MANAGE THEIR $20 MILLION REAL ESTATE INVESTMENT.

WHY?

Excerpts from a conversation with John Leach, Chairman of the Investment Committee, Board of Retirement, San Bernardino County Employee's Retirement Association, regarding the management of the Board's $20 million real estate investment.

QUESTION: *How did you choose between banks, insurance companies, and real estate companies to manage your investment?*

LEACH: We interviewed some impressive contenders in financial institutions, but chose a full service real estate company.

to wage growth, pensioners were given a 4.5 percent increase in 1979 and 4 percent increases in each of the next two years. In that period, consumer prices rose by 5.5 percent.

As additional relief to the system, pension payments by wage earners were increased, and pensioners were told they would have to share the cost of compulsory medical insurance beginning in 1982.

West Germany's long-term concern is a diminishing birth rate coupled with a widening life expectancy, which means that a shrinking work force will be supporting a larger number of retired people.

> *Most old-age pensions currently granted for those with above-average earnings fall within the range of 40 to 45 percent of final gross earnings up to the contribution limit.*

Government officials have indicated, however, that the solvency of the social security system is assured until 1985.

Summary

A number of proposals have been put forward, among them a proposal to collect taxes on pensions (civil servants' pensions are currently taxed) and to increase the employers' social security taxes by using a graduated system based on company sales. In the meantime, the potential for social unrest is serious, crucial questions remain, and many people inside as well as outside Germany are concerned about the future of the system that began almost 100 years ago. ☐

Grubb & Ellis, because we wanted a team with experience in the right locations and its own computer data collection network for finding the best properties. We were especially interested in the Sun Belt and West Coast; Grubb & Ellis has offices in these locations, plus the best data bank in those regions.

Also, we were interested in other services such as property management, that Grubb & Ellis could provide at highly competitive prices.

QUESTION: *Were you concerned that they would favor their own divisions, for example, commercial brokerage, contrary to your best interest?*

LEACH: Yes, we thought about that: it comes down to believing in the integrity of the team and in their determination to build a performance track record with you. Also, we felt that a publicly held independent company like Grubb & Ellis had suitably long term goals.

QUESTION: *Did the size of your investment enter into your decision?*

LEACH: We are investing in excess of $20 million over two years in real estate. The continual re-evaluation and maximization of a real estate portfolio of that size requires not only experienced professionalism but also considerable computerized data management capability: we chose a team that was up to the task.

QUESTION: *What about fees?*

LEACH: Remuneration as a percentage of overall investment did not vary much between companies; however the Grubb & Ellis fee system rewards performance because it is geared to asset appreciation. We felt that was important.

For further information on Grubb & Ellis services for pension fund managers, contact:

Terry P. Noyer
Vice President, Property Services Division
Grubb & Ellis Company
1333 Broadway, Oakland, CA 94612
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Grubb & Ellis

Real Estate Highlight

Investment possibilities in mini-warehouses

As plan sponsors decide to invest in real estate equity, they are looking for "good products" that can give them what they want and what their plans require.

Apparently, what plan sponsors want from real estate equity investments is a continuing cash return. Most say that the absolute minimum return desired is 10 percent.

A relatively recent real estate product, the mini-warehouse storage concept, provides an investor with immediate and continuous cash distributions, plus long-term appreciation.

Mini-warehouses actually came into the real estate picture in the early 1970's, but began to boom when inflation hit double digit rates. Just like office buildings and shopping centers, mini-warehouse facilities appreciated at rates exceeding the inflation rate. Unlike those counterparts, however, cash returns did not get caught in an inflationary squeeze. Office building and shopping center managers found it difficult to increase rent sufficiently to make up for inflation. Mini-warehouse owners found no problem in raising rents at a pace at least equal to the rise in the CPI.

Most mini-warehouse products are designed and packaged to return to the investor his total investment in about seven years. At that time, the portfolio manager has the option of liquidating the investment to take advantage of inflation-boosted appreciation or continuing to receive the cash distributions annually, which probably have increased significantly because of inflation.

Mini-warehouses also have another advantage of particular interest to plan sponsors — they are cash investments. There is no mortgage to service or to erode cash flow.

Comparative Annual Rate of Return

Market Indexes	1-Year (1979)	3-Year Average (1977-79)	5-Year Average (1975-79)
Real Estate Fund Index	21.6%	15.0%	12.2%
S&P 500 Stock Index	17.4	5.0	14.5
Salomon Bros. Long-Term Corporate Bond Index	-4.9	-1.1	5.6
90-Day Treasury Bills	9.8	7.4	6.6
Consumer Price Index (CPI)	13.3	9.7	8.2
Mini-Warehouse Index	23.0	20.5	16.8

The accompanying chart and graph show that mini-warehouse products have outperformed not only traditional equity, bond, and cash equivalent portfolios but also the Exchange Bank of Chicago's Real Estate Fund Index — which is made up of the real estate commingled funds of the major insurance companies. Annualized returns from an index of selected mini-warehouse projects averaged 16.8 percent for the five-year period from 1975 through 1979.

Meeting a need

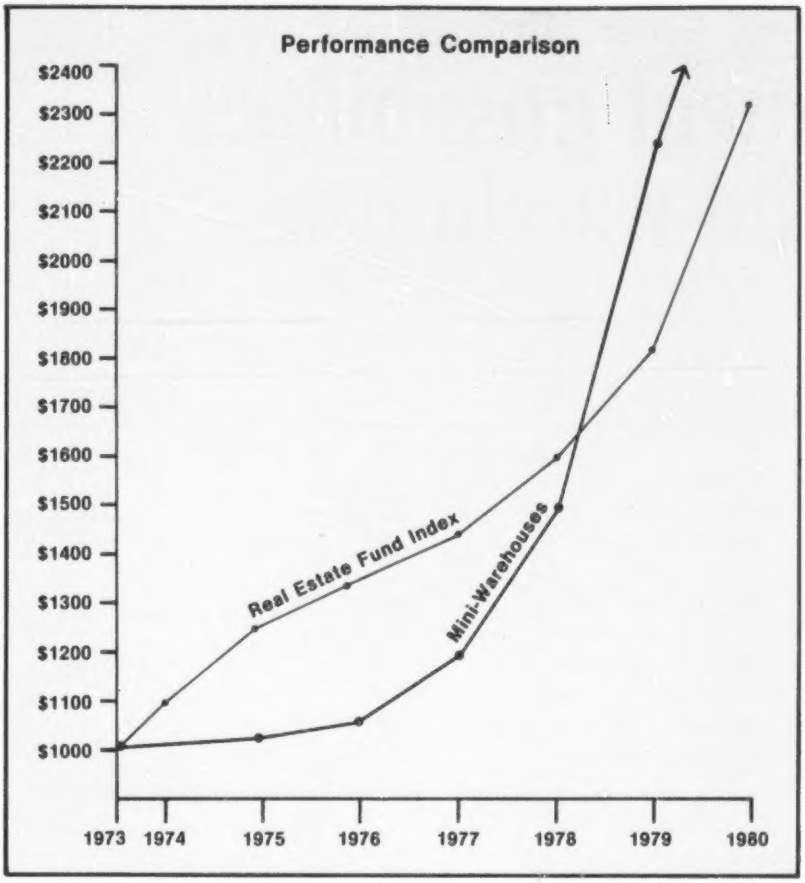
There is a reason for this kind of performance, and it is a very simplistic reason. The mini-warehouse concept is meeting an important need in the economy and in society right now. Even in the best economic scenario, that need will increase significantly in coming years.

The mini-storage facility meets the growing demand of individuals and businesses for temporary and excess storage. Its market as a service industry is the individual who needs storage space for his belongings — furniture, hobby equipment, recreational vehicles, etc. — and the business that needs additional space to store records, inventories, or equipment.

Public acceptance of this concept has been overwhelming, as shown by the high occupancy rate enjoyed by the industry as a whole. More important as an investment consideration, however, is the especially bright future outlook for the industry. Many commentators note this vehicle's similarity to bowling alleys, motels, and fast food chains, whose successes were based on the ability to capitalize on changing trends in America. The mini-storage market is a direct response to current needs reflected in today's lifestyles.

Individuals have more free time and spendable income. They own recreational vehicles, hobby and sports equipment, and other property which, while not in use, must be stored. On the other hand, inflation has pushed up building costs, creating smaller apartment units and houses with increasingly limited storage space. Business,

by **ROBERT H. McCLINTOCK**
President
The Concept Companies
Atlanta, Ga.



too, finds office and conventional warehouse space too expensive for static storage, yet finds it profitable to increase merchandise and supply inventory.

The government has also contributed to the expanding market via increased recordkeeping requirements, which add to businesses' already large static storage requirements. Trends in local government favor regulation against at-home and on-street storage of recreational vehicles. Thus, basic trends in the American lifestyle and economic environment have laid the groundwork for an ever-increasing demand for mini-storage facilities.

The mini-storage industry has developed and experienced its initial growth in certain areas of Texas, Arizona, and California. For the most part, the industry is still operating in virgin territory. Given its present stage of development and the outlook for its market, mini-storage facilities offer attractive growth potential.

Physical description

The buildings in a mini-storage complex typically are 30 to 40 feet wide and 100 to 400 feet long and are divided into partitioned cubicles. Each side of the building looks like a long row of contiguous garages or lockers, each with its own steel door. The areas between the buildings are paved with asphalt, and the entire complex is surrounded by a fence. Safety is often provided by limited access gates, close-circuit television, and other security devices. A portion of the building near the entrance serves as the office and contains the resident manager's apartment. Most facilities allow daylight access and have been designed to allow easy access to large trucks.

Economic feasibility

Generally, such facilities are located toward the outskirts of cities and directly in the paths of growth. They are adjacent to heavily traveled thoroughfares, which provide ready access in an area already favored by commercial development. Land costs, then, are comparatively moderate while still offering growth potential.

The facilities themselves are simple in design and do not require expensive architectural plans, labor, or building material. Expensive features, such as heating and air conditioning, carpets, extensive plumbing, and windows, are not required except for the manager's apartment.

Operating costs are low in comparison to other real estate ventures. Simplicity of construction leads to minimal maintenance and repair. The resident manager concept, generally used, provides an inexpensive alternative to higher clerical, sales, and janitorial costs. Management costs are extremely low, and management concerns virtually nonexistent.

Rental rates, although generally higher than conventional warehouses, offer the cost-conscious consumer an inexpensive alternative to higher office and warehouse rates because of smaller square foot usage. Typical rates are $25 per month for a 5½′ x 10′ space in Florida ($.45 per sq. ft.) and $46 per month for a 10′ x 10′ space in California ($.46 per sq. ft.). Because rents are relatively low, they can be raised to keep up with the inflation rate with very little problem.

Thus, the combination of moderate land costs (comparatively), low construction and operating costs, and high rental rates per square foot usage offers the investor potentially high cash flow. As the initial costs of a project are liquidated, the return from the investment grows year by year.

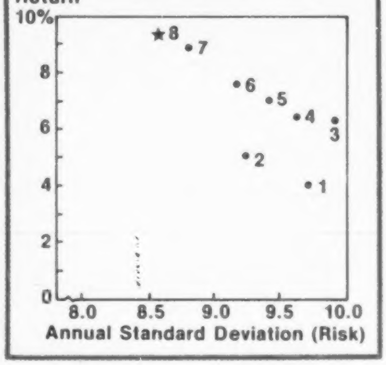
To see how the mini-warehouse concept can work for pension funds, let's look at a typical package. This is a $4 million package with five locations and a total of 2,848 spaces, providing over 250,000 square feet of rentable space.

Avg. Cost per Rentable Sq. Ft.	
Land	$ 4.98
Development	11.04
Total	16.02
Total cost	4,014,000.00
Avg. scheduled annual rent per rentable sq. ft.	4.41
Gross receipts	1,016,918.00
Costs of operation	211,469.00
Management fees	61,009.00
Net cash from operations	744,440.00
Net cash from operations as a percentage of total costs	19%

(Continued on page 70)

Figure 14

The Asset Mix Story
(12/31/76-9/30/81)



ing stocks, bonds, and cash equivalents (plot point 2), the portfolio moved in a favorable direction. The risk went down; the return went up. With stocks, bonds, cash, and non-U.S. bonds (plot point 3), risk went up again, but really not a lot more than at point 1, and the return jumped substantially.

International equities were added at plot point 4. The risk went down a little bit; the return stayed high. Adding some smaller stocks at plot point 5, the return gets up higher; risk decreases. Real estate is put in the portfolio at plot point 6. Returns get higher. Continuing to diversify and mix the portfolio, venture capital is added at plot point 7. All these pieces put together, given what the preferences were for the types of risk and return, is represented by plot point 8.

This asset mix story simply shows that in real life you can change the pattern of returns and risks by using the different asset mixes intelligently. It's not easy to do, but that's not the point. The point was to raise the question — does it help your performance to think intelligently through the asset mix questions, and should you do that on a broad scale? It seems that the answer is clearly yes.

There are three valuable results of intelligent asset mix decisions. First, satisfaction. The investment management team will pull together better and achieve better results if the focus is on the asset mix of the overall portfolio. Then, how an individual manager contributes to that overall purpose can be examined. Second, performance maximization. The issue here relates to the whole portfolio. The performance of that totality is distinct from the individual pieces that make it up. Third, systematic evaluations. If you look at the portfolio and the asset mix in one systematic framework, it makes the job of evaluating the individual managers and the overall portfolio much easier, much more comprehensible, and, it is hoped, much more successful. ☐

Real Estate Highlight: Investment possibilities

(Continued from page 44)

If the return from this cash investment is viewed in the same manner as the return from a cash investment in stock, it certainly exceeds the 10 percent minimum that most plan sponsors say they want from their real estate investments.

Some pension funds, including Westinghouse and Atlantic Richfield, have already invested in mini-warehouses. This investment vehicle is also popular with smaller funds as it provides them with a means of moving into real estate with minimum risk and maximum return potential.

Of course, not all mini-warehouse projects would be appropriate for pension fund investment. Factors to consider include:

- Geographical location. For instance, the Southwest is fairly well saturated.
- Structure of the developer or management organization as well as its track record. Management fees are important to the overall return. As indicated, operating costs are relatively low, so management fees, in terms of the total investment, should be very low.
- Design of the storage facility. Is the complex designed for the market it wants to attract? A mini-storage complex with storage units of 100 square feet each may be ideal for a residential area, but it probably would not attract business or corporate customers.

As with any investment vehicle, pension fund managers should evaluate mini-warehouse projects carefully. Since this cash investment more nearly resembles stock investments than it does the traditional real estate investment, the investment manager may want to use the same criteria for evaluation of mini-warehouse investment as he uses in determining what stocks to buy. ☐

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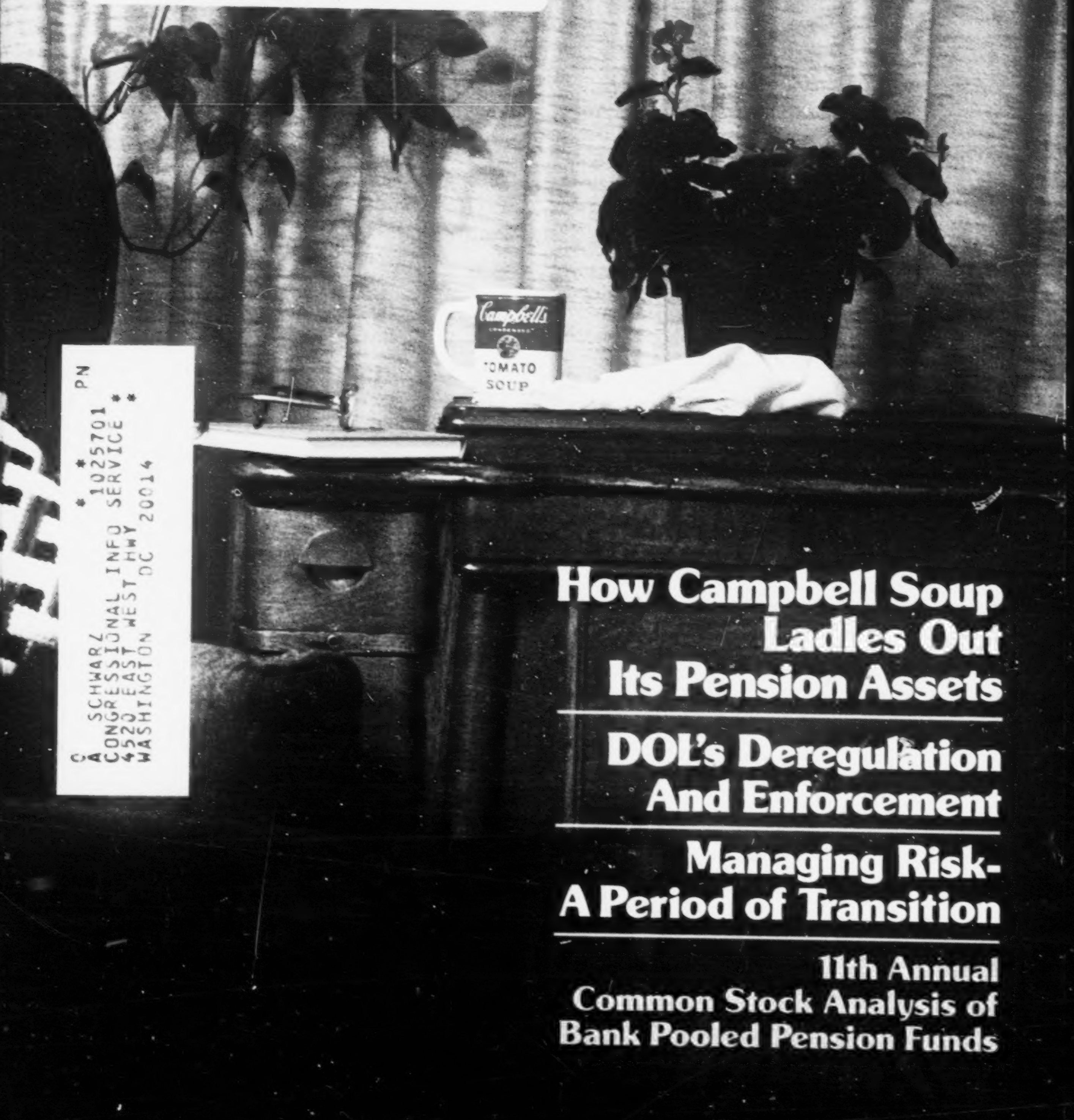

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How Campbell Soup Ladles Out Its Pension Assets

DOL's Deregulation And Enforcement

Managing Risk-A Period of Transition

11th Annual Common Stock Analysis of Bank Pooled Pension Funds

Pension World

May 1982
Volume 18 Number 5

The Magazine for Plan Sponsors and Investment Managers/A Publication of Communication Channels, Inc.

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Plan Sponsor Focus: Campbell Soup spells out equity investment strategy by Marie Powers **12**
Three financial executives at the century-old prepared-foods firm relate the background that has led to the $294 million pension fund's dramatic decision to focus on the stock market and pull out of fixed income.

U.S. Department of Labor: Balancing deregulation and enforcement by Jeffrey N. Clayton **19**
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Real Estate Highlight: Should pension funds open the apartment door? by Gerald L. Hirsch **23**
Historically, institutional investors have spurned residential income property, but this real estate authority contends that such avoidance may be based on a misleading set of investment assumptions.

Administration: Managing risk — a period of transition by Richard T. Delaney and Mary E. Hennessy **28**
The 1970's was a decade of sweeping change in the managing and financing of insurance risk, according to these specialists at Towers, Perrin, Forster & Crosby, In what direction have these changes pointed the industry for the 1980's?

11th Annual Survey of Bank Pooled Pension Fund Accounts **47**
Pension World reports on the investment trends of 125 pooled pension funds during 1981 — what issues the banks hold, what's dropped in and out, the favorite 50 — plus a breakdown of assets and a summary of portfolio characteristics.

Pension World Basics: Oft-asked questions about cash or deferred plans by Keith Swenson **62**
In a straightforward, question-and-answer approach, an employee benefits consultant explains the basic characteristics, qualifications, and tax implications of this new vehicle for retirement savings.

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Pension World
How Campbell Soup Ladles Out Its Pension Assets
DOL's Deregulation And Enforcement
Managing Risk: A Period of Transition

Cover: **Though the red and white Campbell Soup logo is most familiar in a home setting, the firm's products are positioned strategically throughout the world. The Campbell pension fund has been managed with equal vision, as detailed on page 12.**

Cover photo by Diana H. P. Roberts

BPA
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11th Annual Survey of Bank Pooled Pension Fund Accounts

A significant shift occurred in 1982 in the holdings of bank pooled pension fund accounts, according to the data reported in *Pension World's* 1982 survey of these accounts.

As of December 31, 1981, cash and equivalents accounted for 49.9 percent of the holdings of the *PW* universe of 125 pooled funds held by 95 banks. This compares with 38.9 percent in cash in 1980 and 31.5 percent in 1979.

Though 63.5 percent of the funds reporting last year noted that they planned to increase their commitment to equities in 1981, this category, instead, showed a pronounced decline. Common stocks represent only 21.26 percent of this year's portfolio. This figure caps a three-year decline, from 49 percent in 1979, to 39.7 percent in 1980, and 34.08 percent last year. Of the 90 banks that reported how much they plan to allocate to their equity portfolios in 1982, 60 percent plan to increase their commitment to equities, while 29.5 percent plan to hold even, and 6.3 percent plan to decrease holdings.

During 1981, the funds reporting invested the remainder of their assets in corporate bonds (21.19 percent — nearly a 10 percent increase over 1980's figure), real estate (3.4 percent), U.S. government securities (1.62 percent), mortgages (.9 percent), international securities (.86 percent), and a combination of smaller holdings totaling just under 1 percent. Assets in the 125 pooled pension fund accounts totaled $22.4 billion, as of December 31.

The range of stock holdings continues to expand, despite the dramatic decrease in the percentage of assets committed to equities. In 1979, 549 different stock issues were listed in the *Pension World* survey; in 1980, 883 stocks were listed; in 1981, 1,047 firms appeared; this year, 1,351 different stocks are held.

In the 1978 and 1979 surveys, the drop-outs outnumbered the drop-ins. The 1980 and 1981 surveys showed a reversal of this trend. In 1982, the drop-ins and drop-outs are nearly equal — 169 and 164, respectively — although the numbers have risen in both categories, from 125 and 93 last year. Both lists span a wide range of industries, and the drop-outs reflect, in part, the number of corporate mergers that occurred in 1981.

Sixteen stocks are newcomers to this year's Favorite Fifty list. IBM Corp. retains its stranglehold on the top spot, and the top 10 remain intact from last year, with a few minor shifts in position. Pharmaceutical and high-technology firms made the greatest advances, by far, with nine of the newcomers falling into one of these categories. Financial institutions also made a respectable showing this year, and most of the major oil and oil-service stocks remain on the top 50 list.

According to statistics published by Computer Directions Advisors, Inc. (CDA), Silver Spring, Md., both bank pooled common stock funds and the S&P 500 plunged in performance during 1981, with bank pooled common stock funds losing only a little less than the S&P. For the year ending December 31, 1981, CDA reports the S&P 500 was at −5.0 percent and bank pooled common stock funds at −4.2 percent. This compares with December 31, 1980, levels of +32.5 percent and +29.6 percent, respectively.

Questionnaires for the *Pension World* survey of bank pooled pension fund accounts were mailed to 600 U.S. banks and trust companies during January, 1982. A total of 106 responses was received — including 60 of the banks in the 1981 universe — for a response rate of 17.7 percent. Only those institutions that provided complete data were included in the universe of 95 banks.

What stocks they hold

Stock	% of Funds Holding	Number of Shares Held
Abbott Laboratories	12.0	275,800
Accivalmex	.8	750,000
ACF Industries	3.2	109,323
Acme-Cleveland Corp.	2.4	51,000
ADAC Laboratories	.8	10,500
Adage	.8	8,000
Adobe Oil & Gas Corp.	2.4	59,900
Advanced Micro Devices	.8	15,000
Aetna Life & Casualty Co.	10.4	207,462
AG Int'l Software	1.1	105,500
Ahmanson (H. F.) & Co.	.8	22,800
Air Florida	1.6	201,600
Air Products & Chemicals	4.8	45,700
Air Wisconsin	.8	16,495
Airborne Freight Corp.	1.6	46,000
Akzona	1.6	2,400
Ala Moana Hawaii Properties Ltd.	.8	182,700
Alaska Airlines	.8	34,650
Alaska Interstate Co.	.8	2,800
Alaska Pacific Bancorp.	.8	14,500
Albany Int'l Corp.	1.6	71,600
Albertson's	2.4	15,000
Alcan Aluminum Ltd.	2.4	17,100
Alco Standard Corp.	.8	15,000
Alexander & Alexander	3.2	59,000
Alexander & Baldwin	1.6	73,100
Allegheny Corp.	3.2	39,400
Allegheny Ludlum Industries	.8	92,500
Allegheny Power System	1.6	136,000
Allied Bancshares	1.6	58,752
Allied Chemical Corp.	2.4	20,100
Allied Corp.	3.2	12,049
Allied Stores Corp.	5.6	39,500
Allis-Chalmers Corp.	2.4	4,700
Alpha Microsystems	.8	2,000
Alpha Portland Industries	.8	75,000
Aluminum Co. of America	9.6	141,200
Amarex	1.6	65,000
AMAX	2.4	31,311
Amdahl Corp.	2.4	60,900
Amerada Hess Corp.	7.2	166,588
American Airlines	4.0	39,400
American Brands	6.4	94,700
American Broadcasting Cos.	7.2	95,400
American Building Maintenance Ind.	.8	4,000
American Cable TV Industries	1.6	2,050
American Can Co.	1.6	3,800
American Cyanamid Co.	4.0	34,400
American District Telegraph Co.	1.6	3,100
American Electric Power Co.	4.0	43,138
American Express Co.	20.8	361,661
American Fluoride Corp.	.8	95,000
American General Insurance Co.	3.2	87,600
American Greetings Corp.	2.4	45,000
American Home Products Corp.	16.0	317,483
American Hospital Supply Corp.	8.0	69,569
American Int'l Group	7.2	104,900
American Medical Int'l	9.6	186,700
American Monitor Corp.	.8	8,247
American National Insurance Co.	.8	27,500
American Natural Resources Co.	4.8	27,500
American Quasar Petroleum Co.	.8	116,000
American Standard	5.6	103,000
American Stores Co.	1.6	2,200
American Telephone & Telegraph Co.	43.2	800,495
Ames Department Stores	.8	5,000
Ametek	1.6	23,100
AMF	2.4	98,100
AMP	5.6	60,211
Amplica	.8	100,000
Amstar Corp.	1.6	1,900
Amsted Industries	1.6	2,100
Analog Devices	.8	70,500
Analogic Corp.	.8	8,000
Anderson Greenwood & Co.	.8	85,000
Andrew Corp.	2.4	44,200
Angelica Corp.	.8	28,000
Anglo Energy Co. Ltd.	1.6	93,500
Anheuser-Busch Cos.	11.2	261,600
Apache Corp.	1.6	57,400
Apple Computer	2.4	42,071
ARA Services	4.0	167,300
Archer Daniels Midland Co.	7.2	46,887
Arizona Bank	.8	45,675
Arizona Public Service Co.	3.2	20,300
Arkansas Louisiana Gas Co.	3.2	23,600
Armco	4.8	82,550
Armstrong World Industries	4.8	97,496
Arrow Electronics	1.6	38,340
ASA Ltd.	1.6	1,900
ASARCO	4.0	16,500
Ask Computer Systems	.8	14,000
Associated Dry Goods Corp.	3.2	45,600
Atlantic City Electric Co.	.8	5,850
Atlantic Oil Co.	.8	119,000
Atlantic Research Corp.	.8	8,500
Atlantic Richfield Co.	46.4	692,542
Atlas Van Lines	.8	10,000
Augat	4.8	279,900
Aurrera	.8	1,400,000
Autolite Auto Parts	.8	3,000
Automatic Data Processing	5.6	93,200
Automatic Switch Co.	.8	58,000
Autotrol Corp.	.8	8,000
Avantek	2.4	212,000
Avco Corp.	3.2	304,900
Avery Int'l Corp.	.8	12,000
Avnet	2.4	90,620
Avoca	.8	785
Avon Products	8.0	55,300
Baker Int'l Corp.	8.8	186,712
Baldor Electric Co.	.8	82,500
Bally Mfg. Corp.	2.4	110,700
Baltimore Gas & Electric Co.	2.4	10,964
Bancal Tri-State Corp.	.8	102,100
Banctec	.8	63,500
Bandag	.8	18,000
Bangor Punta Corp.	.8	300
Bank of the South	.8	10,250
Bankamerica Corp.	8.0	122,854
Bankers Trust New York Corp.	1.6	4,966
Bankoklahoma Corp.	.8	2,200
Bard (C. R.)	2.4	14,900
Barnes Group	.8	6,000
Barnett Banks of Florida	1.6	41,200
Basic Earth Science Systems	.8	160,000
Bausch & Lomb	3.2	46,600
Baxter Travenol Laboratories	12.0	312,000
Bay Financial Corp.	1.6	178,900
Baybanks	1.6	13,700
BBDO Int'l	1.6	13,200
Beard Oil Co.	.8	23,550
Beatrice Foods Co.	6.4	173,985
Beckman Instruments	5.6	50,000
Becton, Dickinson & Co.	4.8	72,900
Beehive Int'l	1.6	28,250
Beker Industries Corp.	.8	1,900
Belco Petroleum	3.2	68,320
Bell & Howell Co.	2.4	48,273
Belo (A. H.) Corp.	1.6	48,800
Bemis Co.	1.6	700
Bendix Corp.	7.2	34,095
Beneficial Corp.	1.6	4,400
Bergen Brunswig Corp.	2.4	66,996
Best Products	.8	5,000
Bethlehem Steel Corp.	2.4	78,700
Betz Laboratories	6.4	67,400
Big Three Industries	7.2	183,150
Binney & Smith	.8	6,000
Biochem Int'l	.8	100,000
Biomedical Reference Labs	1.6	15,000
Black & Decker Mfg. Co.	3.2	31,200
Block (H. & R.)	1.6	26,500
Blue Bell	3.2	19,600
Boeing Co.	11.2	126,625
Boise Cascade Corp.	4.8	112,700
Bolt Technology Corp.	1.6	8,000
Borden	3.2	33,900
Borg-Warner Corp.	3.2	30,000
Boston Digital Corp.	.8	112,500
Boston Edison Co.	.8	5,000
Bow Valley Industries Ltd.	.8	57,500
Bracken Oil	.8	25,000
Brenco	.8	127,000
Briggs & Stratton Corp.	1.6	3,100
Bristol-Myers Co.	12.8	156,600
Brock Hotel Corp.	6.4	90,000
Brooklyn Union Gas Co.	1.6	1,600
Brooks Harvey Realty	.8	20,000
Brown (Tom)	.8	19,100
Brown Forman Distillers Corp.	4.8	95,900
Brown Group	2.4	3,400
Browning-Ferris Industries	6.4	157,200
Brunswick Corp.	1.6	4,500
Brush Wellman	.8	5,000
Bucyrus-Erie Co.	4.0	23,800
Burlington Industries	4.0	102,000
Burlington Northern	8.8	96,290
Burndy Corp.	1.6	140,000
Burns (R. L.) Co.	.8	4,000
Burns Int'l Security Svcs.	.8	12,000
Burnup & Sims	.8	6,000
Burroughs Corp.	11.2	110,200
Butler Int'l	.8	34,000
C3	2.4	348,746
Caesar's World	.8	1,500
Calvin Exploration	.8	2,000
Cameron Iron Works	3.2	398,800
Cambell Red Lake Mines Ltd.	1.6	9,500
Campbell Soup Co.	3.2	32,400
Campbell Taggart	1.6	25,650
Canadian Marconi	.8	8,500
Canadian Pacific Enterprises Ltd.	1.6	26,000
Capital Cities Communications	4.0	37,600
Capital Holding Corp.	6.4	54,400
Carlisle Corp.	.8	3,300
Carnation Co.	1.6	7,400
Carolina Freight Carriers Corp.	.8	7,300
Carolina Power & Light Co.	.8	3,000
Carpenter Technology Corp.	1.6	26,800
Carter (William) Co.	1.6	3,200
Carter Hawley Hale Stores	2.4	26,083
Caterpillar Tractor Co.	19.2	174,396
CBI Industries	4.0	31,100
CBS	8.0	80,600
Celanese Corp.	2.4	7,200
Centex Corp.	4.0	315,800
Central & Southwest Corp.	3.2	71,600
Central Illinois Public Svc. Co.	.8	8,000
Central Louisiana Electric Co.	2.4	70,645
Central Louisiana Energy Corp.	3.2	71,700

Stock	% of Funds Holding	Number of Shares Held
Central Main Power Co.	.8	8,000
Central Soya Co.	.8	3,000
Central Telephone & Utilities Corp.	4.0	79,900
Certainteed Corp.	.8	2,300
Cessna Aircraft Co.	2.4	32,000
Cetsus	.8	3,000
Champion Int'l Corp.	2.4	63,800
Champion Products	.8	14,000
Champion Spark Plug Co.	1.6	7,600
Chaparral Resources	.8	50,000
Charles River Breeding Labs	1.6	38,000
Charming Shoppes	.8	32,000
Chart House	2.4	50,300
Chase Manhattan Corp.	7.2	156,200
Chemical New York Corp.	4.0	75,925
Chemical Nuclear System	3.2	134,412
Chem-Lawn Corp.	2.4	118,421
Chesebrough-Pond's	8.0	177,100
Chicago & Northwestern Transportation Co.	.8	30,000
Chicago Pneumatic Tool Co.	1.6	1,200
Chi-Chi's	.8	50,000
Chieftain Development Ltd.	1.6	126,500
Christiana Cos.	.8	100,700
Chromalloy American Corp.	.8	80,000
Chubb Corp.	1.6	2,400
Church's Fried Chicken	3.2	27,700
Chyron Corp.	.8	22,000
Cincinnati Milacron	4.0	78,600
Cipher	.8	85,000
Circle K Corp.	.8	1,000
Citicorp.	13.6	234,876
Cities Service Co.	4.0	77,400
Citizens Fidelity Corp.	.8	143,000
Citizens Southern Georgia Corp.	1.6	27,000
City Investing Co.	.8	19,200
City National Corp.	.8	22,500
Claiborne (Liz)	1.6	6,200
Clark Equipment Co.	4.8	167,200
Cleveland-Cliffs Iron Co.	.8	9,900
Clorox Co.	1.6	4,500
Cluett Peabody & Co.	1.6	2,000
CMI Corp.	.8	1,000
CNA Financial Corp.	1.6	9,500
Coastal Corp.	2.4	117,700
Cobe Laboratories	.8	60,000
Coca-Cola Co.	12.0	215,518
Coherent	.8	6,000
Cole National Corp.	.8	10,000
Colgate-Palmolive Co.	4.8	41,600
Collagen Corp.	.8	50,000
Collins & Aikman Corp.	.8	20,000
Colonial Life & Accident Insurance Co.	1.6	100,500
Color Tile	2.4	171,750
Columbia Gas System	2.4	15,800
Columbia Pictures Industries	2.4	11,600
Com Systems	.8	3,000
Combined Int'l Corp.	3.2	22,700
Combustion Engineering	4.8	52,300
Comcast Corp.	.8	65,250
Comdata Network	.8	700
Comdisco	.8	1,400
Commerce Clearing House	.8	3,700
Commerce Southwest	.8	22,000
Commodore Int'l Ltd.	.8	3,600
Commonwealth Edison Co.	6.4	172,398
Communications Corp. of America	1.6	3,500
Communications Industries	3.2	253,500
Communications Satellite Corp.	.8	10,000
Communications Systems	.8	5,000
Community Psychiatric Centers	1.6	9,700
Compact Video Systems	.8	17,000
Comprehensive Care Corp.	1.6	24.500
Compugraphic Corp.	.8	2,000
Computer & Communications Technology Corp.	.8	7,000
Computer Consoles	1.6	155,000
Computer Log Gearhart	.8	93,000
Computer Products	.8	140,000
Computer Sciences Corp.	1.6	2,600
Computervision Corp.	8.8	43,285
Computone Systems	.8	85,000
ConAgra	.8	40,000
Cone Mills Corp.	1.6	1,200
Connecticut General Insurance Corp.	5.6	155,100
Consolidated Edison Co. of New York	3.2	64,300
Consolidated Foods Corp.	4.0	131,400
Consolidated Freightways	8.0	146,100
Consolidated Natural Gas Co.	2.4	5,900
Consolidated Papers	.8	10,500
Continental Group	9.6	135,800
Continental Illinois Corp.	4.8	61,300
Continental Telephone Corp.	4.0	74,845
Control Data Corp.	8.8	335,700
Conwood Corp.	.8	800
Cooper Industries	8.8	88,035
Cooper Laboratories	.8	8,000
Cooper Tire & Rubber Co.	.8	11,500
Coors (Adolph) Co.	1.6	6,900
Core Laboratories	1.6	40,000
Corning Glass Works	4.0	82,200
Corvus Systems	.8	15,000
Cousins Properties	.8	159,125
Cox Broadcasting Corp.	2.4	3,900
CP National Corp.	.8	3,000
CPC International	6.4	105,300
CPT Corp.	.8	389,250
Cracker Barrel Old City Stores	.8	1,000
Crane Co.	3.2	216,510
Crawford Energy Corp.	.8	52,400
Cray Research	2.4	111,500
Cross & Trecker Corp.	2.4	218,000
Cross (A. T.) Co.	3.2	26,500
Crown Cork & Seal Co.	1.6	2,800
Crown Zellerbach Corp.	3.2	73,000
Crum & Forster	4.0	206,250
Crump (E. H.) Cos.	.8	1,500
Crutcher Resources Corp.	3.2	271,300
Crystal Oil Co.	2.4	83,350
CSX Corp.	8.8	120,930
CTS Corp.	1.6	40,600
Cubic Corp.	.8	4,000
Cullinane Database Systems	2.4	109,200
Cummins Engine Co.	3.2	94,700
Cut & Curl	.8	8,000
Dale Electronics	.8	5,000
Dana Corp.	7.2	175,100
Daniel Industries	.8	1,500
Dart and Kraft	12.8	233,438
Data General Corp.	3.2	17,900
Data IO Corp.	.8	4,353
Datapoint Corp.	9.6	111,900
Dayton Hudson Corp.	6.4	58,800
Dayton Power & Light Co.	.8	7,000
De Luxe Check Printers	2.4	75,000
Deca Energy Corp.	.8	168,550
Deere & Co.	13.6	185,743
DeKalb AG Research	4.0	176,800
Delta Air Lines	7.2	117,400
Delta Drilling	1.6	70,500
Denelcor	1.6	38,500
Denny's	5.6	401,600
Deposit Guaranty Corp.	.8	52,600
Detector Electronics Corp.	.8	5,000
Detroit Bank Corp.	.8	5,800
Detroit Edison Co.	2.4	23,119
Di Giorgio Corp.	.8	8,600
Diamond Int'l Corp.	1.6	2,720
Diamond Shamrock Corp.	2.4	30,680
Diasonics	.8	300,000
Diebold	4.0	36,400
Digital Equipment Corp.	25.6	266,568
Dillingham Corp.	.8	182,700
Dillon Cos.	.8	27,000
Disney (Walt) Productions & Asso. Cos.	8.8	76,932
Dr. Pepper Co.	1.6	4,000
Docutel	.8	14,800
Dollar General Corp.	.8	220
Dome Mines Ltd.	2.4	14,900
Dome Petroleum Ltd.	2.4	312,000
Dominion Bankshares Corp.	.8	42,000
Donaldson Co.	.8	10,500
Donnelley (R. R.) & Sons Co.	3.2	16,900
Dorado Micro Systems	1.6	7,500
Dorchester Gas Corp.	.8	5,900
Dover Corp.	6.4	215,000
Dow Chemical Co.	15.2	209,004
Dow Jones & Co.	2.4	12,200
Doyle Dane Bernbach	.8	18,000
Dranetz Engineering Labs	.8	62,500
Dravo Corp.	1.6	134,150
Dresser Industries	14.4	233,228
Drillers Service	3.2	269,300
Duke Power Co.	4.8	88,400
Dun & Bradstreet Corp.	6.4	83,760
DuPont (E. I.) De Nemours & Co.	10.4	234,500
Duralith Corp.	.8	10,000
Duriron Co.	.8	12,027
Dynatech Corp.	.8	10,000
Dysan Corp.	2.4	30,700
E G & G	3.2	66,000
E-Systems	1.6	21,666
Eagle-Picher Industries	1.6	28,800
Eastern Gas & Fuel Assoc.	4.8	132,500
Eastern Utilities Assoc.	.8	8,000
Eastman Kodak Co.	36.8	450,980
Eastmet Corp.	1.6	170,000
Eaton Corp.	6.4	105,400
Echlin Mfg. Co.	3.2	9,200
Eckerd (Jack) Corp.	8.8	209,430
Economics Laboratory	2.4	223,600
Edison Bros. Stores	.8	59,800
El Paso Co.	4.0	154,400
Electro Biology	1.6	58,000
Electro Nucleonics	1.6	215,000
Electronic Data System	1.6	5,500
Electronic Modules Corp.	1.6	60,750
Electrospace Systems	.8	46,000
Emerson Electric Co.	11.2	74,383
Emery Air Freight Corp.	2.4	7,300
Emhart Corp.	.8	1,750
Energy Minerals	.8	66,900
Energy Reserves Group	2.4	17,000
Engelhard Minerals & Chemicals Corp.	4.0	6,960
Ennis Business Forms	.8	2,550
ENSERCH Corp.	6.4	155,050
Enterra Corp.	4.0	16,300
Entex	1.6	12,000
Equitable Gas Co.	1.6	12,300
Equitable Life Mortgage & Realty Investments	.8	27,000
Esmark	1.6	2,050
Essex Chemical Corp.	1.6	28,000
Esterline Corp.	.8	7,000
Ethyl Corp.	1.6	12,250
Evans & Sutherland Computer Corp.	1.6	14,850
Bob Evans Farms	3.2	87,716
Everest & Jennings Int'l	.8	40,000
Ex-Cell-O Corp.	4.0	43,750
Exxon Corp.	35.2	742,912
Faberge	.8	1,000

Stock	% of Funds Holding	Number of Shares Held
Fairchild Industries	.8	13,500
Falcon Bridge Nickel Mines Ltd.	.8	19,000
Family Dollar Stores	.8	30,000
Farmers Insurance Group	2.4	35,300
Federal Co.	.8	60,000
Federal Express Corp.	4.8	118,450
Federal-Mogul Corp.	.8	72,000
Federal Nat'l Mortgage Assn.	.8	25,000
Federal Paper Board Co.	1.6	1,500
Federated Department Stores	8.0	81,488
Felmont Oil Corp.	.8	70,000
Fieldcrest Mills	1.6	16,000
Figgie Int'l	.8	94,600
Financial Corp. of America	.8	243,220
Firestone Tire & Rubber Co.	3.2	236,100
First Alabama Bancshares	1.6	55,500
First America Corp. of Tennessee	.8	67,000
First Bank Systems	2.4	31,000
First Boston Corp.	1.6	11,000
First Chartor Financial Corp.	2.4	248,900
First Chicago Corp.	4.0	94,200
First City Bank Corp. of Texas	4.8	144,800
First Commercial Corp.	.8	55,000
First Financial Savings & Loan Assn.	.8	6,700
First Interstate Bancorp.	8.8	77,701
First Kentucky Nat'l Corp.	.8	4,000
First Mississippi Corp.	5.6	304,250
First Nat'l Boston Corp.	3.2	4,620
First New Mexico Bankshares	.8	50,250
First Oklahoma Bankshares	.8	41,500
First Union Corp.	1.6	118,400
First United Bancorp.	1.6	71,250
Flagship Banks	.8	13,400
Fleetwood Enterprises	2.4	6,400
Fleming Cos.	.8	3,500
Flight Transportation	.8	200
Flightsafety Int'l	1.6	47,600
Floating Point Systems	2.4	243,200
Florida Power & Light Co.	6.4	112,200
Florida Power Co.	2.4	26,200
Flow General	.8	7,000
Fluke (John) Mfg. Co.	1.6	31,350
Fluor Corp.	8.0	88,314
FMC Corp.	3.2	72,300
Ford Motor Co.	2.4	81,275
Foremost-Mckesson	3.2	197,348
Forest Oil Corp.	1.6	127,500
Fort Howard Paper Co.	4.8	68,623
Fortia (A. B.)	2.4	59,800
Foster (L. B.) Co.	1.6	166,000
Foster Wheeler Corp.	4.0	78,800
Four Phase Systems	.8	1,000
Fox-Stanley Photo Products	.8	40,000
Foxboro Co.	2.4	31,800
Franklin Electric Co.	3.2	90,100
Freedom Savings & Loan Assn.	.8	10,000
Freeport General Corp.	.8	13,000
Freeport-McMoran	7.2	265,318
Frontier Airlines	.8	46,027
Fruehauf Corp.	2.4	13,400
Fuji Photo Film Ltd.	1.6	4,300
Galveston Houston Co.	.8	5,000
Gamma Biologicals	.8	266
Gannett Co.	12.0	206,950
Gap Stores	.8	3,200
Garcias Scottsdale	.8	15,000
GATX Corp.	.8	242,300
GCA Corp.	3.2	8,100
Gelco Corp.	1.6	98,000
Genentech	2.4	3,600
General American Oil Co. of Texas	6.4	249,658
General Automotive Parts Corp.	.8	3,100
General Binding Corp.	.8	15,000
General Cinema Corp.	3.2	65,400
General Dynamics Corp.	5.6	89,300
General Electric Co.	43.2	477,628
General Foods Corp.	6.4	51,500
General Instruments Corp.	3.2	99,100
General Mills	6.4	95,900
General Motors Corp.	13.6	341,554
General Portland Cement Co.	1.6	1,400
General Research Corp.	3.2	30,700
General Signal Corp.	5.6	76,100
General Telephone & Electronics Corp.	12.8	158,916
GenRad	3.2	98,042
Genstar Corp.	1.6	163,200
Genuine Parts Co.	5.6	57,700
Geo Int'l Corp.	2.4	17,600
Georgia-Pacific Corp.	8.8	142,642
Geosource	.8	3,700
Gerber Products Co.	4.0	33,500
Gerber Scientific Instrument Co.	.8	9,000
Gerber Systems Technology	.8	1,200
Getty Oil Co.	8.0	84,300
Gibraltar Financial Corp. (Calif.)	.8	110,000
Gibraltar Savings Assn. (Houston)	.8	67,500
Giddings & Lewis	3.2	147,000
Gillette Co.	4.0	35,100
Gleason Works	.8	125,000
Global Marine	1.6	350,000
Golden Nugget	1.6	8,700
Golden West Financial Corp.	2.4	395,200
Goodrich (B. F.) Co.	1.6	4,000
Goodyear Tire & Rubber Co.	4.8	152,900
Gordon Jewelry Corp.	.8	6,500
Gould	4.0	28,000
Goulds Pumps	1.6	118,000
Grace (W. R.) & Co.	5.6	92,500
Grainger (W. W.)	4.8	68,823
Granger Assoc.	.8	12,100
Graphic Scanning Corp.	.8	25,200
Great Lakes Chemical Corp.	.8	7,000
Great Lakes Int'l	1.6	66,000
Great Northern Nekoosa Corp.	2.4	26,600
Great Western Financial Corp.	4.8	72,000
Great West Hospital	1.6	80,000
Greyhound Corp.	.8	8,000
Grumman Corp.	1.6	1,900
Guardian Industries Corp.	1.6	32,500
Gulf & Western Industries	3.2	121,850
Gulf Interstate Co.	1.6	145,000
Gulf Oil Corp.	8.0	105,600
Gulf Oil Canada Ltd.	2.4	166,600
Gulf States Utilities Co.	.8	10,000
Gulf United Corp.	1.6	94,200
Gulfstream Land & Development Corp.	1.6	178,700
Haemonetics Corp.	1.6	61,000
Halliburton Services	27.2	374,108
Hammermill Paper Co.	.8	500
Handleman Co.	1.6	22,800
Hapco	.8	209
Harcourt Brace Jovanovich	2.4	89,700
Harland (John H.) Co.	.8	6,185
Harper Group	1.6	143,500
Harris Corp.	8.8	217,400
Hart Schaffner & Marx	2.4	51,800
Harte-Hanks Communications	2.4	87,598
HBO & Co.	1.6	12,955
Heck's	.8	150,000
Heileman (G.) Brewing Co.	1.6	12,300
Heinz (H. J.) & Co.	4.8	70,150
Heizer Corp.	1.6	1,389,780
Heller (Walter E.) Int'l Corp.	2.4	48,400
Helmerich & Payne	2.4	36,500
Hercules	6.4	55,400
Hershey Foods Corp.	1.6	2,900
Heublein	4.0	37,200
Hewlett Packard Co.	19.2	277,900
Hexcel Corp.	.8	1,000
Hi-Shear Corp.	.8	2,000
Hilton Hotels Corp.	4.8	87,700
Hitachi Magnetics Corp.	2.4	5,100
Holding (H. H.)	.8	176,000
Holiday Inns	5.6	179,300
Homestake Mining Co.	1.6	3,300
HON Industries	1.6	4,000
Honeywell	10.4	102,185
Hook Drugs	.8	2,500
Horizon Corp.	1.6	52,395
Hospital Corp. of America	12.8	320,523
Hotel Investors Trust (CMB)	.8	90,800
Household Int'l Corp.	2.4	28,800
Houston Industries	5.6	112,250
Houston Natural Gas Corp.	8.8	118,000
Houston Oil Trust (WBI)	1.6	31,900
Hubbel (Harvey)	1.6	16,245
Hudson Bay Mining & Smelting Ltd.	1.6	2,000
Hughes Tool Co.	12.0	179,200
Humana	5.6	164,598
Hunt Mfg. Co.	.8	25,000
Husky Oil Ltd.	.8	149,300
Hybritech	1.6	25,000
Hyster Co.	2.4	6,300
IBM Corp.	62.4	1,121,352
IC Industries	1.6	3,200
Ideal Basic Industries	1.6	2,700
Illinois Power Co.	2.4	7,800
Imed Corp.	.8	5,000
Imperial Corp. of America	.8	135,000
Imperial Oil Ltd.	1.6	37,400
IMS Int'l Corp.	1.6	152,000
INA Corp.	8.0	140,350
Inco Ltd.	4.8	69,926
Indianapolis Power & Light Co.	.8	4,500
Industrial National Corp.	1.6	1,600
Inexco Oil Co.	5.6	351,300
Informatics	.8	4,000
Infotron Systems Corp.	1.6	68,700
Ingersoll-Rand Co.	6.4	121,400
Inland Steel Co.	4.8	30,800
Insilco Corp.	1.6	103,960
Instrumentation Laboratory	.8	55,000
Intel Corp.	12.8	165,300
Interco	5.6	43,500
Interface Mechanisms	.8	10,000
Interfirst Corp.	4.8	69,500
Intergraph Corp.	2.4	144,247
Interlake	1.6	1,314
Intermedics	.8	500
Int'l Clinical Labs	.8	1,050
Int'l Flavors & Fragrances	3.2	30,300
Int'l Minerals & Chemicals Corp.	5.6	35,300
Int'l Multifoods Corp.	.8	4,400
Int'l Paper Co.	10.4	166,678
Int'l Telephone & Telegraph Corp.	11.2	247,637
Internorth	2.4	11,800
Interpace Corp.	.8	25,000
Interpublic Group of Cos.	.8	3,500
Intertec Data Systems Corp.	.8	4,300
Iowa Electric Light & Power Co.	.8	2,300
Irving Bank Corp.	3.2	109,200
ISC Systems Corp.	1.6	215,284
ISSC Industrial Solid State Controls	.8	37,500
Itek Corp.	.8	25,000
IU Int'l Corp.	1.6	72,400
Jacobs Engineering Group	.8	900
James (Fred S.) & Co.	.8	70,000
James River Corp. of Virginia	1.6	56,250
Jefferson Nat'l Life Insurance Co.	.8	52,500
Jefferson-Pilot Corp.	4.0	47,800
Jerrico	1.6	95,000
Jewel Cos.	3.2	17,800

Stock	% of Funds Holding	Number of Shares Held
Johns-Manville Corp.	1.6	4,500
Johnson & Johnson	18.4	415,235
Johnson Controls	1.6	10,300
Joslyn Mfg. & Supply Co.	.8	2,000
Jostens	3.2	66,062
Joy Mfg. Co.	5.6	110,750
Justin Industries	.8	5,500
JWT Group	1.6	23,500
K mart Corp.	15.2	195,180
Kaiser Aluminum & Chemical Corp.	4.0	106,600
Kaiser Cement Corp.	.8	65,000
Kallestad Laboratories	2.4	28,500
Kaneb Services	3.2	19,000
Kansas City Southern Industries	.8	5,900
Kansas-Nebraska Nat'l Gas Co.	.8	50,000
Kansas Power & Light Co.	.8	2,000
Kaufman & Broad	1.6	2,200
Kellogg Co.	1.6	13,200
Kelly-Johnson Enterprises	1.6	27,500
Kelly Services	.8	55,000
Kennametal	.8	97,600
Kentucky Utilities Co.	.8	4,000
Kerr-McGee Corp.	9.6	99,100
Kevex Corp.	1.6	103,935
Keystone Consolidated Industries	.8	6,000
Keystone Int'l	1.6	77,000
Kidde (Walter) & Co.	1.6	81,800
Kimberly-Clark Corp.	5.6	71,750
Kinder-Care Learning Centers	1.6	245,000
KLA Instrument Corp.	.8	50,000
Kloss Video Corp.	.8	9,500
Knight-Ridder Newspapers	4.0	59,700
Knight Royalty Corp.	.8	93,000
Koger Properties	2.4	416,700
Koppers Co.	4.0	150,500
Kroger Co.	4.0	253,900
Kroy Industries	2.4	152,800
Kulicke & Soffa Industries	.8	2,000
Kyoto Ceramic Ltd.	.8	30,000
L & N Housing Group Corp.	.8	57,200
La Quinta Motor Inns	1.6	127,500
Laclede Steel Co.	.8	50,000
Lanier Business Products	.8	48,000
Lawson Products	.8	16,600
Lawter Chemicals	1.6	37,000
Lear Petroleum	2.4	375,000
Lear Siegler	1.6	84,000
Leaseway Transportation Corp.	2.4	73,000
Leggett & Platt	.8	1,750
Lennar Corp.	1.6	87,100
Lenox	3.2	42,800
Leslie Fay	.8	7,000
Levi Strauss & Co.	8.0	80,600
Lewis (Palmer G.) Co.	.8	22,590
Lexidata Corp.	1.6	13,000
Libbey-Owens-Ford Co.	1.6	2,600
Liberty Corp.	1.6	261,900
Liebert	.8	18,000
Lifemark Corp.	4.0	154,000
Lilly (Eli) & Co.	16.0	143,524
Lilly Tulip	.8	163,124
Limited Stores	.8	10,000
Lin Broadcasting Corp.	.8	50,000
Lincoln National Corp.	3.2	8,800
Lionel Corp.	.8	250,000
Litton Industries	5.6	116,195
Loctite Corp.	1.6	104,000
Lomas & Nettleton Financial Corp.	2.4	285,400
Lone Star Industries	4.0	23,154
Longs Drug Store	.8	4,123
Longview Fibre Co.	.8	3,000
Loral Corp.	7.2	102,654
Louisiana Land & Exploration Co.	3.2	15,000
Louisiana Pacific Corp.	4.8	25,589
Lowenstein Corp.	.8	3,000
Lowe's Cos.	2.4	396,650
LTV Corp.	1.6	17,500
Lubrizol Corp.	4.8	172,400
Luby's Cafeterias	2.4	80,100
Lucky Stores	1.6	10,246
M/A-Com	10.4	189,300
Macmillan	2.4	7,500
Macy (R. H.) & Co.	3.2	63,017
Magic Chef	.8	214,000
Magnuson	.8	25,000
Mallinckrodt	.8	13,000
Malone & Hyde	.8	4,000
Management Science America Corp.	1.6	55,500
Manufacturers Hanover Corp.	5.6	56,600
MAPCO	3.2	63,300
Marathon Oil Co.	2.4	13,000
Marcade Group	.8	10,000
Marriott Corp.	3.2	287,748
Marsh & McLennan Cos.	4.8	137,200
Marshall Field & Co.	2.4	4,100
Marte Products	.8	24,000
Martin Marietta Corp.	3.2	14,950
Maryland Cup Corp.	2.4	26,300
Maryland Nat'l Corp.	.8	150,000
Masco Corp.	6.4	76,400
Masonite Corp.	1.6	2,748
Materials Research Corp.	.8	5,333
Matrix Science Corp.	.8	80,000
Matsushita Electric Industrial	1.6	3,700
Mattel	2.4	20,000
May Department Stores Co.	3.2	35,700
May Petroleum Co.	4.8	158,735
Maytag Co.	4.0	46,900
MCA	4.0	62,800
McDermott	7.2	94,975
McDonald's Corp.	12.0	92,800
McDonnell Douglas Corp.	4.8	58,800
McGraw-Edison Co.	2.4	4,700
McGraw-Hill	2.4	23,500
MCI Communications Corp.	4.8	190,738
McKeon Construction Co.	.8	78,400
Mead Corp.	4.8	90,900
Measurex Corp.	4.0	42,200
Medtronic	8.0	465,400
Mellon National Corp.	1.6	3,900
Melville Corp.	4.0	22,900
Mercantile Stores Co.	1.6	3,600
Mercantile Texas Corp.	4.0	99,500
Merck & Co.	25.6	188,739
Meredith Corp.	1.6	600
Merrill Lynch & Co.	2.4	26,700
Mesa Petroleum Co.	13.6	525,896
Mesa Royalty Trust	.8	1,300
Metpath	.8	10,900
Metro-Goldwyn-Mayer	3.2	18,205
Metromedia	1.6	800
Meyer (Fred)	.8	179,656
Meyer (Fred) Real Estate Properties	.8	405,544
MGF Oil Corp.	4.0	238,000
MGIC Investment Corp.	2.4	65,600
Micro Z Corp.	.8	10,000
Microdyne Corp.	2.4	130,000
Microsonics Corp.	.8	5,000
Midcon Corp.	1.6	14,333
Middle South Utilities	3.2	37,719
Midland-Ross Corp.	.8	2,600
Miller (Herman)	.8	70,000
Miller-Wohl Co.	1.6	20,500
Millipore Corp.	5.6	112,500
Milton Bradley Co.	2.4	19,000
Minnesota Mining & Mfg. Co.	19.2	197,540
Mission Insurance Group	2.4	21,500
Missouri Pacific Corp.	4.0	28,800
Mitchell Energy & Development	4.8	188,131
Mite Corp.	.8	350
Mitel Corp.	1.6	68,900
Mobile Communications Corp. of America	1.6	19,000
Mobil Corp.	17.6	461,500
Mohasco Corp.	1.6	2,400
Mohawk Data Sciences Corp.	.8	19,000
Molex	.8	116,500
Monarch Avalon	.8	10,800
Monarch Machine Tool Co.	1.6	900
Monsanto Co.	11.2	127,900
Montana Power Co.	.8	3,000
Monument Energy Services	.8	135,000
Moog	4.0	169,800
Moore McCormack Resources	1.6	4,850
Moran Energy	2.4	270,350
Morgan (J. P.) & Co.	11.2	91,050
Morrison-Knudsen Co.	.8	2,600
Morse Shoe	1.6	132,200
Morton-Norwich Products	1.6	47,000
Motorola	6.4	60,000
Multimedia	1.6	100,498
Murphy (G. C.) Co.	.8	90,000
Murphy Oil Corp.	3.2	39,400
Muse Air Corp.	.8	17,000
Mutual of New York	.8	41,500
Nabisco	8.0	110,965
Nalco Chemical Co.	5.6	95,000
Napco Industries	.8	4,375
Naples Federal Savings & Loan Assn.	.8	9,000
Nashua Corp.	.8	1,600
National Bank of Alaska	.8	9,000
National Can Corp.	1.6	1,800
National Commerce Bank Corp.	.8	106,000
National Computer Systems	1.6	151,500
National Convenience Stores	1.6	65,400
National Data Corp.	.8	170,000
National Distillers & Chemical Corp.	3.2	14,100
National Gypsum Co.	1.6	3,300
National Medical Care	4.8	584,000
National Medical Enterprises	4.0	63,694
National Patent Development	.8	4,000
National Semiconductor Corp.	3.2	29,500
National Service Industries	.8	5,200
National Standard Co.	.8	6,700
National Steel Corp.	1.6	3,800
National Utilities & Industries Corp.	.8	2,000
Natomas Co.	5.6	256,340
NBI	1.6	20,900
NCH Corp.	.8	2,000
NCNB Corp.	1.6	3,810
NCR Corp.	5.6	108,600
Nerda Microwave Corp.	.8	65,700
Network Securities Corp.	.8	30,000
Network Systems Corp.	3.2	98,950
New Brunswick Scientific	.8	50,000
New England Business Service	.8	67,500
New England Electric System	2.4	10,412
New England Merchants Co.	.8	34,500
New York Times Co.	.8	60,000
Newfoundland Capital Corp.	.8	75,000
Newhall Land & Farming Co.	.8	153,900
Newmont Mining Corp.	3.2	16,700
Newpark Resources	1.6	4,300
Newport Corp.	.8	110,000
Newsco Well Services	.8	80,000
Niagra Mohawk Power Corp.	1.6	15,000
Nicklos Oil & Gas	4.8	209,800
Nicor	.8	2,100
Nielsen (A. C.) Co.	2.4	43,900
Nike	1.6	17,500
Nippon	.8	100
NL Industries	12.8	259,900

Stock	% of Funds Holding	Number of Shares Held
NLT Corp.	5.6	127,300
NML Real Estate Trust	.8	10,000
Nobility Homes	.8	3,000
Noble Affiliates	8.0	188,900
Nordstrom	4.0	160,500
Norfolk & Western Railway Co.	10.4	73,000
Norpac Exploration Services	.8	42,900
Norstan	.8	95,000
Northern Consolidated Oils, Ltd.	.8	10,000
Northeast Utilities Service Co.	.8	11,000
Northern Calif. Savings & Loan Assn.	.8	118,100
Northern Indiana Public Service Co.	.8	2,200
Northern States Power Co.	4.8	116,303
Northern Telecom Ltd.	4.0	172,400
Northwest Airlines	5.6	43,200
Northwest Bancorp.	4.0	46,100
Northwest Industries	6.4	48,936
Northwest Natural Gas Co.	.8	20,000
Northwestern Nat'l Life Insurance Co.	.8	76,800
Norton Co.	2.4	25,200
Norton Simon	1.6	9,210
Novo Corp.	3.2	72,404
Nucor Corp.	2.4	4,000
Numac Oil & Gas	.8	63,900
Oak Industries	3.2	229,180
Oakwood Petroleum Ltd.	.8	69,900
Occidental Petroleum Corp.	2.4	120,464
Ocean Drilling & Exploration Co.	.8	5,000
Odetics	.8	700
Ogden Corp.	.8	10,100
Ogilvy & Mather	.8	20,000
Ohio Edison Co.	3.2	38,784
Oklahoma Gas & Electric Co.	.8	8,300
Oklahoma Natural Gas Co.	.8	1,900
Olin Corp.	.8	68,000
Olsten Corp.	.8	96,000
Omark Industries	.8	12,700
Omnicare	1.6	41,400
ONEOK	1.6	2,000
Orbanco Financial Svcs. Corp.	.8	10,000
Oriole Homes Corp.	.8	66,990
Outboard Marine Corp.	2.4	37,200
Overnite Transportation Co.	.8	17,000
Overseas Shipholding Group	.8	95,400
Owens-Corning Fiberglas Corp.	5.6	37,400
Owens-Illinois	5.6	59,900
Ozark Air Lines	.8	5,000
P. T. Components	.8	77,705
Pabst Brewing Co.	1.6	1,700
Paccar	3.2	7,700
Pacific Gamble Robinson Co.	.8	7,386
Pacific Gas & Electric Co.	6.4	115,412
Pacific Gas Transmission	1.6	77,100
Pacific Lighting Corp.	1.6	5,000
Pacific Lumber Co.	1.6	35,000
Pacific Power & Light Co.	1.6	19,743
Paine, Webber	.8	2,500
Pall Corp.	1.6	40,000
Palm Beach Co.	1.6	28,200
Palmetto Savings & Loan Assn. (Fla.)	.8	5,000
Pan American Bancshares	.8	80,300
Panhandle Eastern Pipe Line Co.	9.6	61,755
Paradyne Corp.	4.0	115,500
Parker Drilling Co.	6.4	445,500
Parker-Hannifin Corp.	2.4	105,150
Parker Pen Co.	.8	11,050
Parsons Corp.	.8	4,000
Patrick Petroleum Co.	2.4	87,935
Pay Less Drug Stores	1.6	127,000
Pay 'N' Pak Stores	1.6	213,400
Pay-N-Save Corp.	2.4	179,500
Payless Cashways	.8	1,600
Peabody Int'l Corp.	1.6	2,200
Peavey Co.	.8	25,000
Penn Central Co.	.8	3,550
Penney (J. C.) Co.	8.8	160,785
Pennsylvania Power & Light Co.	.8	6,000
Pennzoil Co.	2.4	78,900
Peoples Energy Corp.	3.2	20,048
People's Express Airline	.8	36,400
Pepsico	16.8	468,844
Perini Corp.	.8	113,900
Perkin-Elmer	7.2	96,900
Permian Basin Royalty	1.6	185,700
Petrie Stores Corp.	4.0	75,850
Petrolane	2.4	50,000
Petroleum Equipment Tools Co.	2.4	26,500
Petroleum Helicopters	2.4	207,000
Petrolite Corp.	2.4	161,500
Pfizer	20.0	404,642
Phelps Dodge Corp.	2.4	11,800
PHH Group	8	21,000
Phibro Corp.	10.4	213,756
Philadelphia Electric Co.	3.2	33,100
Philadelphia National Corp.	.8	15,000
Philip Morris	29.6	569,125
Philips Industries	1.6	23,000
Phillips Petroleum Co.	17.6	235,200
Pic'N'Save Corp.	4.0	147,959
Piedmont Aviation	1.6	21,000
Piedmont Natural Gas Co.	.8	100,000
Pillsbury Co.	3.2	56,200
Pioneer Corp. of Texas	2.4	54,000
Pioneer Hi-Bred Int'l	1.6	152,300
Pitney Bowes	3.2	15,000
Pittsburgh National Corp.	.8	2,600
Pittston Co.	7.2	118,100
Pittway Corp.	.8	2,000
Plantronics	1.6	176,500
Pogo Producing Co.	2.4	124,000
Polaroid Corp.	1.6	6,400
Policy Mgmt. System Corp.	.8	13,000
Potlatch Corp.	1.6	3,200
PPG Industries	6.4	74,000
Precision Castparts Corp.	.8	8,600
Prentice-Hall	1.6	17,000
Presidio Oil Co.	1.6	226,100
Prime Computer	5.6	62,100
Procter & Gamble Co.	17.6	258,250
Production Operators	1.6	305,000
Property Capital Trust	.8	7,700
Provident National Corp.	.8	3,000
Public Svc. Co. of Colorado	1.6	48,000
Public Svc. Co of Indiana	8.0	179,806
Public Svc. Co. of New Mexico	.8	4,700
Public Svc. Electric & Gas Co.	1.6	15,252
Puget Sound Power & Light Co.	1.6	11,900
Pulte Home Corp.	1.6	197,900
Purex Corp.	4.0	18,400
Puritan Bennett Corp.	.8	75,000
Purolator Products	.8	3,100
Quadrex Corp.	.8	10,000
Quaker Oats Co.	3.2	12,100
Quality Care	.8	60,000
Quanex Corp.	3.2	24,050
Quotron Systems	1.6	147,200
Radiofone Corp.	.8	107,500
Ralston Purina Co.	6.4	128,483
Ranier Bancorp.	.8	10,000
Ransburg Corp.	2.4	29,000
Rapidata	.8	37,500
Ratliff Drilling & Exploration	.8	20,000
Raychem	1.6	136,800
Raytheon Co.	21.6	384,242
RCA Corp.	5.6	69,705
Reading & Bates Corp.	5.6	339,300
Redken Labs	.8	6,500
Redman Industries	2.4	29,600
Reeves Communications Corp.	1.6	4,800
RepublicBank Corp.	.8	96,000
Republic Corp.	1.6	103,100
Republic Steel Corp.	1.6	3,300
Republic Texas	1.6	9,000
Reuter	.8	4,625
Revco D. S.	6.4	138,400
Revlon	10.4	117,900
Rexham Corp.	.8	70,000
Rexnord	1.6	4,300
Reynolds (R. J.) Industries	20.0	300,600
Reynolds Metals Co.	2.4	4,800
Richardson-Vicks	4.8	52,400
Rite Aid Corp.	6.4	229,333
Roadway Express	4.8	26,000
Robinson Nugent	.8	65,000
Rockwell Int'l Corp.	3.2	30,800
Rohm & Haas Co.	.8	9,400
Rohr Industries	.8	22,000
Rollins	4.0	156,700
Rolm Corp.	8.0	77,336
Rorer Group	3.2	29,800
Rouse Co.	.8	145,000
Rowan Cos.	5.6	1,079,400
Royal Crown Cos.	1.6	1,700
Royal Dutch Petroleum	3.2	71,000
RPM	2.4	28,682
Rubbermaid	2.4	82,000
Russ Togs	.8	32,000
Russell Corp.	.8	19,244
Ryan Homes	2.4	266,998
Ryder System	2.4	166,160
Rykoff (S. E.) & Co.	.8	185,000
Ryland Group	.8	64,600
Sabine Corp.	1.6	77,310
Safeco Corp.	2.4	5,300
Safeguard Business Systems	1.6	129,000
Safety-Kleen Corp.	1.6	300,000
Safeway Stores	3.2	23,400
Sage Energy Co.	.8	117,300
St. Paul Cos.	5.6	40,100
St. Regis Paper Co.	3.2	40,200
San Bar Corp.	1.6	31,000
San Juan Basin Royalty	.8	125,000
Sanders Assoc.	4.0	101,125
Santa Anita Realty Enterprises	.8	139,000
Santa Fe Industries	9.6	262,550
Santa Fe Int'l Corp.	3.2	60,300
Savannah Foods & Industries	.8	3,150
Saxon Oil	.8	8,000
SCA Services	.8	11,000
Scan Optics	.8	30,000
Schaak Electronics	.8	20,000
Schering-Plough Corp.	10.4	161,600
Schlitz (Jos.) Brewing Co.	2.4	30,700
Schlumberger Ltd.	36.8	552,374
SCI Systems	.8	123,447
Scientific-Atlanta	6.4	47,000
Scientific Software	.8	20,500
SCM Corp.	.8	12,000
Scott & Fetzer Co.	1.6	60,000
Scott Paper Co.	2.4	22,700
Scotty's	.8	8,700
Scovill	.8	30,000
Sea Galley Stores	1.6	221,000
SeaCo.	.8	8,000
Seafirst Corp.	1.6	16,000
Seagate Technology	.8	500
Seagram Co. Ltd.	2.4	7,900
Sealed Air Corp.	2.4	57,000
Sealed Power Corp.	.8	12,400
Searle (G. D.) & Co.	4.0	133,800
Sears, Roebuck & Co.	4.8	145,350
Security Pacific National Bank	1.6	2,000
Sedco	6.4	151,900
Seibels (Bruce) Group	.8	201,300

Stock	% of Funds Holding	Number of Shares Held
Seis Pros	.8	50,000
Sensormatic Electronics Co.	4.8	96,349
Service Merchandise Co.	.8	250,000
Servicemaster Industries	4.0	61,954
Seven Oaks Int'l	.8	12,000
SFN Cos.	1.6	2,300
Shaklee Corp.	.8	16,200
Shared Medical Systems Corp.	2.4	213,000
Shawmut Corp.	.8	112,000
Sheldahl	.8	40,000
Shell Oil Co.	5.6	126,000
Sheller-Globe Corp.	.8	10,100
Sherwin-Williams Co.	.8	1,900
Shoney's	.8	230,000
Signal Cos.	4.8	78,390
Skyline Corp.	2.4	4,400
Smith Int'l	7.2	72,400
SmithKline Corp.	22.4	205,500
Snap-on Tools Corp.	4.8	81,878
Sonat	.8	15,000
Sony Corp. of America	8.0	442,400
Sooner Federal Savings & Loan Assn.	.8	20,000
South Carolina Electric & Gas Co.	.8	8,700
South Carolina National Corp.	.8	26,500
Southeast Banking Corp.	2.4	90,000
Southern Calif. Edison Co.	6.4	62,093
Southern Co.	4.0	85,403
Southern Natural Resources	10.4	153,400
Southern Pacific Co.	1.6	16,700
Southern Railway Co.	9.6	35,100
Southern Union Co.	.8	60,000
Southland Corp.	3.2	258,000
Southland Royalty Co.	3.2	191,300
Southwest Airlines Co.	1.6	3,312
Southwest Bankshares	1.6	40,500
Southwest Florida Banks	.8	100,000
Southwest Forest Industries	.8	100,000
Southwestern Public Svc. Co.	.8	70,000
Sovereign Corp.	.8	200,000
Sparkman Energy	.8	82,650
Spectra Physics	2.4	120,900
Sperry Corp.	8.0	124,771
Spring Mills	1.6	1,900
SPS Technologies	.8	10,500
Square D Co.	8.0	89,900
Squibb Corp.	7.2	141,300
Staff Builders	.8	1,000
Staley (A. E.) Mfg. Co.	.8	1,500
Standard Brands	.8	5,000
Standard Oil Co. (Indiana)	28.8	492,040
Standard Oil Co. of Calif.	20.8	475,690
Standard Oil Co. (Ohio)	9.6	210,500
Standard Pacific	.8	150,600
Stanley Works	.8	55,000
State Street Boston Corp.	.8	4,000
Statesman Group	.8	95,000
Stauffer Chemical Co.	5.6	51,800
Stelco	1.6	135,000
Sterling Drug	5.6	253,900
Stevens (J. P.) & Co.	1.6	3,100
Stone Container Corp.	.8	400
Storage Technology	7.2	83,490
Storer Broadcasting Co.	.8	36,700
Stryker Corp.	1.6	28,000
Subaru of America	.8	12,500
Suburban Propane Gas Corp.	.8	10,600
Sullair Corp.	.8	6,000
Sun Co.	3.2	70,800
Sunair Electronics	.8	15,000
Sunbeam Corp.	3.2	88,800
Sundance Oil Co.	.8	5,000
Sundstrand Corp.	5.6	89,333
Super Valu Stores	3.2	148,500
Superior Oil Co.	13.6	405,350
Sybron Corp.	2.4	86,900
Syntex	1.6	3,000
Sysco Corp.	4.8	137,942
System Industries	.8	7,000
Systematics	.8	500
T R E Corp.	2.4	31,400
Taft Broadcasting Co.	4.8	108,900
Tampax	.8	4,100
Tandem Computers	6.4	407,800
Tandon Corp.	2.4	135,000
Tandy Corp.	13.6	938,996
Teck Ltd.	.8	70,000
Teco Energy	3.2	180,000
Tektronix	6.4	25,750
Tele-Communications	.8	130,000
Teleco Oilfield Svcs.	3.2	348,873
Telecommunications Equipment Corp.	2.4	12,500
Telecredit	.8	42,000
Teledyne	1.6	4,068
Telephone & Data Systems	.8	15,000
Telesciences	2.4	784,326
Tellabs	.8	6,000
Tenneco	15.2	272,049
Teradyne	1.6	1,700
Texaco	8.8	168,000
Texas American Bancshares	.8	30,000
Texas Commerce Bancshares	4.0	89,500
Texas Eastern Corp.	4.8	68,800
Texas Gas Transmission Corp.	8.8	114,800
Texas General Resources	1.6	46,650
Texas Industries	1.6	16,464
Texas Instruments	5.6	31,500
Texas Int'l Co.	2.4	61,600
Texas Oil & Gas Corp.	18.4	429,580
Texas Utilities Co. System	10.4	129,231
Texcan	.8	20,900
Textron	4.8	72,100
Thermo Electron Corp.	.8	2,000
Thiokol Corp.	1.6	19,500
Thomas & Betts Corp.	2.4	4,600
Thomas Industries	.8	4,000
Tidewater	4.8	160,800
Tie Communications	.8	3,000
Time	3.2	25,000
Times Fiber Communications	2.4	130,500
Times Mirror Co.	4.8	88,100
Timken Co.	1.6	2,400
Todd Shipyards Corp.	.8	1,000
Torotel	.8	15,000
Tosco Corp.	1.6	2,700
Towle Mfg. Co.	.8	20,000
Toys "R" Us	3.2	254,650
Tracor	2.4	140,227
Trane Co.	1.6	2,000
Trans World Corp.	.8	13,500
Transamerica Corp.	4.8	98,000
Transco Cos.	7.2	94,900
Transway Int'l Corp.	.8	3,500
Travelers Corp.	7.2	93,500
Triad Systems Corp.	3.2	109,675
Trinity Industries	1.6	184,900
Trust Co. of Georgia	.8	10,000
TRW	8.8	92,100
Tucson Electric Power	.8	1,000
Twin Disc	.8	3,000
Tyco Laboratories	.8	6,000
Tyler Corp.	2.4	27,000
Tymshare	4.8	52,100
UAL	3.2	42,400
UGI Corp.	1.6	95,000
Ultra Systems	.8	34,500
UMC Industries	.8	2,700
UNC Resources	.8	2,300
Unilever	1.6	6,300
Unimation	2.4	52,890
Union Camp Corp.	9.6	77,900
Union Carbide Corp.	10.4	125,782
Union Oil Co. of Calif.	19.2	557,908
Union Pacific Corp.	17.6	235,891
Union Planters Corp.	.8	70,000
Unit Drilling & Exploration	.8	7,300
United Banks of Colorado	.8	10,000
United Brands Co.	.8	500,000
United Cable Television	.8	6,000
United Energy Resources	7.2	183,850
United Financial Group	2.4	3,875
United Keno Hills Mines Ltd.	.8	37,400
U.S. Air	.8	60,000
U.S. Bancorp.	.8	6,600
USF&G Corp.	4.8	34,150
United States Gypsum Co.	3.2	38,160
U.S. Home Corp.	4.0	196,450
USLIFE Corp.	1.6	106,000
United States Shoe Corp.	.8	3,000
U.S. Steel Corp.	4.8	55,300
United States Surgical Corp.	3.2	239,350
United States Tobacco Co.	2.4	23,700
U.S. Trust Co. of New York	1.6	6,100
United Stationers	1.6	41,000
United Technologies Corp.	13.6	169,985
United Telecommunications	6.4	102,642
Unitrode Corp.	.8	14,000
Univar Corp.	.8	4,000
Universal Foods Corp.	.8	45,400
Universal Health Services	1.6	24,550
Universal Leaf Tobacco Co.	.8	3,500
Universal Resources Corp.	1.6	174,000
Upjohn Co.	8.0	70,200
Utah Power & Light Co.	.8	1,000
Valero Energy Corp.	3.2	91,000
Valley National Corp. of Arizona	2.4	47,000
Valleylab	2.4	116,400
Varco Int'l	.8	200,000
Varian Assoc.	.8	53,300
Varlen Corp.	.8	500
Vector Graphic	.8	12,000
Veeco Instruments	2.4	68,150
Vermont American Corp.	1.6	146,500
Vernitron Corp.	.8	13,500
V.F. Corp.	2.4	21,700
Viacom int'l	1.6	39,700
Video Corp., America	.8	22,000
Viking Freight System	.8	12,000
Virginia Electric & Power Co.	1.6	19,800
Virginia National Bancshares	1.6	13,000
Visual Technology	.8	20,000
Vitramon	.8	13,860
Wachovia Corp.	3.2	76,000
Wainoco Oil Co.	1.6	51,000
Wal-Mart Stores	4.8	39,649
Walgreen Co.	1.6	1,400
Walker (Hiram) Resources Ltd.	1.6	13,600
Walter (Jim) Corp.	3.2	34,600
Wang Laboratories	7.2	84,794
Warner Communications	18.4	232,907
Warner-Lambert Co.	9.6	185,300
Washington Gas Light Co.	.8	5,000
Waste Management	8.0	61,600
Watkins-Johnson Co.	3.2	50,800
Weatherford Int'l	4.0	214,725
Welded Tube Co. of America	.8	40,800
Wells Fargo & Co.	3.2	30,000
Wells Fargo Mortgage & Equity Trust	.8	3,500
Wendy's Int'l	.8	100,000
Western Co. of North America	6.4	175,237
Western Union Corp.	1.6	10,800
Westinghouse Electric Corp.	7.2	101,000
Westmoreland Coal Co.	2.4	56,700
WestPoint Pepperell	2.4	22,100
Westvaco Corp.	1.6	5,000
Weyerhaeuser Co.	8.8	194,400

Stock	% of Funds Holding	Number of Shares Held
Wheelabrator-Frye	5.6	35,422
Whirlpool Corp.	4.0	14,800
White Consolidated Industries	3.2	108,200
Whittaker Corp.	4.0	94,600
Willamette Industries	1.6	10,171
Williams Cos.	8.0	176,200
Williams Electronics	.8	9,500
Wilson (H. J.) Co.	.8	20,500
Winn-Dixie Stores	1.6	5,000
Wisconsin Electric Power Co.	6.4	146,379
Wisconsin Public Service Corp.	.8	10,000
Wiser Oil Co.	.8	5,000
Witco Chemical Corp.	.8	13,000
Wolverine World Wide	.8	47,600
Wometco Enterprises	1.6	127,000
Woods Petroleum	.8	60,000
Woolworth (F. W.) Co.	2.4	9,400
Worthington Industries	.8	45,000
Wright (Barry) Corp.	.8	7,000
Wrigley (Wm.), Jr. Co.	1.6	1,700
Writer Corp.	.8	17,000
Wyle Laboratories	.8	1,563
Xerox Corp.	17.6	191,375
Xidex	.8	5,000
Yellow Transit Freight Lines	3.2	36,700
Zapata Corp.	2.4	251,500
Zayre Corp.	1.6	164,600
Zenith Radio Corp.	1.6	4,500
Zions Utah Bancorp.	1.6	75,000
Zurn Industries	2.4	17,500

The drop-ins

Accivalmex
Adac Laboratories
Air Florida
Ala Moana Hawaii Properties Ltd.
Alaska Pacific Bancorp.
Alco Standard Corp.
Alpha Portland Industries
American Fluoride Corp.
Anderson Greenwood & Co.
Angelica Corp.
Ask Computer Systems
Bank of the South
Barnes Group
Basic Earth Science Systems
Beker Industries Corp.
Boston Digital Corp.
Bow Valley Industries Ltd.
Bracken Oil
Brock Hotel Corp.
Brown (Tom)
Burns Int'l Security Svcs.
Butler Int'l
Caesar's World
Carolina Freight Carriers Corp.
Central Soya Co.
Cetsus
Charming Shoppes
Chicago & Northwestern Transportation Co.
Chi-Chi's
Chieftain Development Ltd.
Chromalloy American Corp.
Cipher
Coastal Corp.
Collagen Corp.
Comdisco
Commerce Clearing House
Communications Satellite Corp.
Community Psychiatric Centers
Computone Systems
ConAgra
Conwood Corp.
Cooper Tire & Rubber Co.
Corvus Systems
Cut & Curl
Daniel Industries
Data IO Corp.
Delta Drilling Co.
Detroit Bank Corp.
Diasonics
DiGiorgio Corp.
Dillon Cos.
Docutel
Donaldson Co.
Duriron Co.
Electro Biology
Electrospace Systems
Energy Minerals
Ennis Business Forms
Enterra Corp.
Equitable Gas Co.
Esterline Corp.
Faberge
Figgie Int'l
First America Corp. of Tennessee
Forest Oil Corp.
Fortia (A.B.)
Fox-Stanley Photo Products
Freedom Savings & Loan Assn.
Freemont General Corp.
Gap Stores
Garcias Scottsdale
Gerber Scientific Instrument Co.
Gibraltar Savings Assn. (Houston)
Gordon Jewelry Corp.
Graphic Scanning Corp.
Grumman Corp.
Gulf States Utilities Co.
HBO & Co.
Heck's
Imed Corp.
Informatics
Insilco Corp.
Interface Mechanisms
ISSC Industrial Solid State Controls
Jefferson Nat'l. Life Insurance Co.
Kansas-Nebraska Nat'l. Gas Co.
Kaufman & Broad
KLA Instrument Corp.
Kyoto Ceramic Ltd.
L & N Housing Group Corp.
Laclede Steel Co.
Liebert
Lilly Tulip
Limited Stores
Lionel Corp.
Luby's Cafeterias
Magic Chef
Marcade Group
Matrix Science Corp.
Merrill Lynch & Co.
Microsonics Corp.
Mite Corp.
Monarch Avalon
Monarch Machine Tool Co.
Montana Power Co.
Morse Shoe
Murphy (G. C.) Co.
National Commerce Bank Corp.
National Standard Co.
Nerda Microwave Corp.
Newfoundland Capital Corp.
Newport Corp.
Norpac Exploration Services
Northern Calif. Savings & Loan
Novo Corp.
Olin Corp.
Omnicare
Ozark Air Lines
P. T. Components
Paccar
Paine, Webber
Peavey Co.
Penn Central Co.
Policy Management System Corp.
Property Capital Trust
Provident National Corp
Radiofone Corp.
Rapidata
Reuter
Rohr Industries
Russell Corp.
Rykoff (S.E.) & Co.
Scotty's
Scovill
Security Pacific National Bank
Seis Pros
Sheldahl
Sheller-Globe Corp.
Shoney's
Southwest Forest Industries
Southwestern Public Svc. Co.
Sovereign Corp.
Statesman Group
Stelco
Tele-Communications
Telecredit
Telephone & Data Systems
Texas American Bancshares

Texas Int'l Co.
Texcan
Thomas Industries
Todd Shipyards Corp.
Twin Disc
Ultra Systems
Unit Drilling & Exploration
United Brands Co.
Universal Health Services
Vector Graphic
Vernitron Corp.
Video Corp., America
Viking Freight System
Visual Technology
Washington Gas Light Co.
Welded Tube Co. of America
Wendy's Int'l
Wilson (H. J.) Co.
Wolverine World Wide
Wright (Barry) Corp.
Zayre Corp.

The drop-outs

American Hoist and Derrick Co.
American Motors Corp.
AMFAC
Ampex Corp.
Applicon
Applied Materials
AZL Resources
Bairnco
Ball Corp.
Barber-Greene Co.
Bearings
Beverly Enterprises
Bowne & Co.
Braniff Int'l
Brascan
Brenda Mines
British Petroleum
Bunker Ramo Corp.
Cabot Corp.
Callon Petroleum
Central Carolina Bank & Trust Co.
Chemed Corp.
Chomerics
Clark Oil & Refining Corp.
Coca-Cola Bottling Co. of N.Y.
Coldwell Banker
Colt Industries
Columbia General Corp.
Comshare
Conoco
Continental Air Lines
Continental Oil Co.
Convill Communities
Copeland Corp.
Crouse-Hinds Co.
Data Card Corp.
Dataproducts Corp.
Dataram Corp.
Delaware & Hudson Railway Co.
Delhi Int'l Oil Corp.
Detections Systems
Dreco Energy Services
Eastern Air Lines
Elscint Ltd.
Employers' Casualty Corp.
Energy Conversion
Energy Resources Group
Epsco
Evans Products Co.
FBM
Ferro Corp.
First Tennessee National Corp.
Fisher Scientific Co.
Florida National Banks
Foote, Cone & Belding Communications
General DataComm Industries
General Nutrition Corp.
GK Technologies
Great American Industries
Hall (Frank B.) & Co.
Hecla Mining Co.
Heritage Communication
Hobart Corp.
Houston Oil & Minerals Corp.
Hudson Bay Oil & Gas
Hudson Petroleum
Illinois Tool Works
International Harvester Co.
Ionics
Iowa Beef Processors
Kansas Power & Light Co.
Kennecott Corp.
Kemper Corp.
Knogo
Lance
Lennox Industries
Life Instruments
Long Island Lighting Co.
Louisville Gas & Electric Co.
Management Assistance
Marley Co.
Mayer (Oscar) & Co.
McCormick & Co.
McFarland Energy
MEI Corp.
Memorex Corp.
Merland Explorers
Modern Merchandising
Modular Computer Service Systems
Monarch Capital Corp.
Monogram Industries
Monolithic Memories
Mountain States Resources
MTS Systems Corp.
National City Bancorp.
National City Lines
National Old Line Insurance Co.
New England Nuclear Corp.
Newport Pharmaceuticals
Niagara Frontier Services
Nicolet Instrument Corp.
Nipsco
Norris Industries
North American Philips Corp.
North American Royalties
Northwest Energy Co.
Pacific Southwest Airlines
PaR Systems
Pengo Industries
Philadelphia Suburban Corp.
Piccadilly Cafeterias
Porta System Corp.
Prairie Producing Co.
Printronix
Progressive Corp. of Ohio
Ramada Inns
Raymond Int'l
Realty & Mortgage Investors
Recognition Equipment
Red Lake Mines
Republic Airlines
Research-Cottrell
Reynolds & Reynolds
Richardson-Merrell
RLC Corp.
Robins (A.H.) Co.
Saga Corp.
St. Joe Minerals Corp.
San Francisco Real Estate Investors
Seagull Pipeline Corp.
Sealectro Corp.
Sherer Oil Co.
Siliconix
Southern Medical Pharmaceutical Co.
Southwestern Energy Co.
Standyne
Struthers Wells Corp.
Sun Banks of Florida
Sun Electric Corp.
Sunshine Jr. Stores
Tacoma Boatbuilding
Tampa Electric Co.
Texasgulf
Trans-Industries
Trans Union Corp.
Trus Joist Corp.
Turbo Resources
Twentieth Century-Fox Film Corp.
Unishops
United Television
Vallen
Varo
Volt Information Sciences
Wavetek
Weigh-Tronix
Weis Markets
Westburne Int'l Industries Ltd.
Western Air Lines
Western Casualty & Security Co.
Western Digital
Whitney Holding Corp.
Wiebbard Real Estate Investments
Woodhead (Daniel)
Wyman-Gordon Co.

The favorite fifty

Stock	Rank 1982	 1981	% of Funds Holding	Number of Shares Held
IBM Corp.	1	1	62.4	1,121,352
Atlantic Richfield Co.	2	2	46.4	692,452
American Telephone & Telegraph Co.	3	6	43.2	800,495
General Electric Co.	4	4	43.2	477,628
Schlumberger Ltd.	5	5	36.8	552,374
Eastman Kodak Co.	6	8	36.8	450,980
Exxon Corp.	7	3	35.2	742,912
Philip Morris	8	9	29.6	569,125
Standard Oil Co. (Indiana)	9	7	28.8	475,690
Halliburton Co.	10	10	27.2	374,108
Digital Equipment Corp.	11	18	25.6	266,568
SmithKline Corp.	12	44	22.4	205,500
Raytheon Co.	13	11	21.6	384,242
Standard Oil Co. of Calif.	14	14	20.8	475,690
American Express Co.	15	—	20.8	361,661
Pfizer	16	35	20.0	404,642
Reynolds (R.J.) Industries	17	17	20.0	300,600
Union Oil of Calif.	18	28	19.2	557,908
Hewlett Packard Co.	19	—	19.2	277,900
Minnesota Mining & Manufacturing Co.	20	19	19.2	197,540
Caterpillar Tractor Co.	21	12	19.2	174,369
Texas Oil & Gas Corp.	22	—	18.4	429,580
Johnson & Johnson	23	36	18.4	415,235
Warner Communications	24	—	18.4	232,907
Mobil Corp.	25	15	17.6	461,500
Procter & Gamble Co.	26	—	17.6	258,250
Union Pacific Corp.	27	31	17.6	235,891
Phillips Petroleum Co.	28	16	17.6	235,200
Xerox Corp.	29	20	17.6	191,375
Pepsico	30	39	16.8	468,844
American Home Products Corp.	31	25	16.0	317,483
Lilly (Eli) & Co.	32	30	16.0	143,524
Tenneco	33	—	15.2	272,049
Dow Chemical Co.	34	38	15.2	209,004
K mart Corp.	35	21	15.2	195,180
Dresser Industries	36	42	14.4	233,228
Tandy Corp.	37	—	13.6	938,996
Mesa Petroleum Co.	38	—	13.6	525,896
Superior Oil Co.	39	26	13.6	485,350
General Motors Corp.	40	27	13.6	341,554
Citicorp	41	—	13.6	234,876
Deere & Co.	42	40	13.6	185,743
United Technologies Corp.	43	—	13.6	169,985
Hospital Corp. of America	44	—	12.8	320,523
NL Industries	45	—	12.8	259,900
Dart & Kraft	46	—	12.8	233,438
Intel Corp.	47	—	12.8	165,300
General Telephone & Electronics Corp.	48	—	12.8	158,916
Bristol-Myers Co.	49	22	12.8	156,600
Baxter Travenol Laboratories	50	—	12.0	312,000

JUNE 1982

Pension World

The Magazine for Plan Sponsors and Investment Managers/A Publication of Communication Channels, Inc.

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American Brands, Inc.

CHEEZ-IT
Chip-A-Roos
KRISPY
JIM BEAM
Mr & Mrs T Bloody
Wilson Jones
Jergens
PALL MALL
Tareyton
Grenadiers
Carlton 100's

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American Brands: Growth Through Diversification

Investment in Shopping Centers

Effects of ERTA on ESOP's

Option Writing Management

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Pension World

June 1982
Volume 18 Number 6

The Magazine for Plan Sponsors and Investment Managers/A Publication of Communication Channels, Inc.

Features

Plan Sponsor Focus: American Brands: Growth through diversification by Ronald Derven 13
Three financial executives responsible for overseeing the $703 million invested through American Brands' 35 pension and profit-sharing plans highlight the company's long-term objectives of growth and safety for the funds.

Real Estate Highlight: Pension fund investment in regional shopping centers by Robert J. Crabbe 19
When considering regional malls for the pension portfolio, a real estate consultant suggests "thinking like a retailer" to distinguish among the potential flop, the so-so center, and the outstanding success.

Employee Stock Ownership Plans: Pay-based tax credit ESOP's: less for more by Ronald J. Rakowski 25
The Economic Recovery Tax Act of 1981 has dramatically changed the method by which company contributions to tax credit employee stock ownership plans are determined — benefiting many employees but limiting opportunities for some.

Real Estate: Second generation mortgage pass-through certificates by Mark Korell 31
The conventional mortgage pass-through certificate has become more technically advanced than ever, with the potential now to meet the portfolio yield requirements for pension funds.

Investment Manager Profile: Avatar Associates: Winning by not losing by Ronald Derven 37
Vice President Bruce L. Poliquin explains how this New York City-based manager protects its clients' capital during bear markets so it can be in a position to win big during rallies.

Benefits Communications: Du Pont launches campaign with benefits book by Richard M. Morris 43
In the first of three profiles on employee benefits communications, this Du Pont executive details how the chemicals giant plotted a new benefits campaign for its 110,000 U.S. employees — to an overwhelmingly positive reception.

Pension World Basics: Option writing management for tax-exempt funds by Steve Hardy 65
This investment consultant defines and categorizes types of option writing management, the pro's and con's of each type, and for what retirement funds each type of options management is suitable.

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Cover: **Through an extensive acquisition program undertaken during the last 20 years, American Brands now counts a dozen industries in its stable of subsidiaries. How the company protects the pension assets for its 25 retirement plans begins on page 13.**

BPA

ISSN 0098-1753

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Pension World NEWS

VOLUME 18 NUMBER 6 JUNE 1982

Real estate outperforms stocks and bonds

■ Westport, Conn.-based Evaluation Associates reports a median 1981 performance of 16.9 percent for the 33 open- and closed-end pooled equity real estate funds included in its *Real Estate Profiles.* This compares with −4.9 percent for the S&P 500 Stock Price Index and −1.0 percent for the Salomon Brothers High Grade Bond Index. 1981 returns for the 33 funds ranged from 10.5 to 38.9 percent.

Real Estate has outperformed both stock and bond indexes over longer time periods (see Table I). On average, real estate funds have outperformed stocks by 400 basis points and bonds by 1200 basis points annually.

To ascertain whether these longer-term results were an aberration of the high 1980 and 1981 real estate returns, EAI compared the returns using rolling five-year periods. Table II shows that these median real estate funds outperformed the bond index in all periods and the stock index in four of the six rolling five-year periods. In two periods, 1975-1979 and 1976-1980, the S&P 500 Index outperformed the median real estate fund. As with any median, half the real estate funds had superior returns, with the best performing real estate fund exceeding the index's return (15.4 percent in the first period and 23.4 percent in the second).

The adage "past performance is no guarantee of future performance or trends" applies to real estate as well as to other asset classes. But as these statistics make clear, returns from real estate over various recent cycles have been consistently superior to or equivalent with both stocks and bonds.

The real estate data was derived by EAI from statistics included in *Real Estate Profiles,* a quarterly publication that tracks 46 open- and closed-end equity, equity-oriented mortgage, and balanced real estate funds available to employee benefit and other tax-exempt funds.

Table I Real Estate, Stock, and Bond Performance

Annualized Total Rates of Return (Gross of Fees) (Ending December 31, 1981)

	10 Years	8 Years	6 Years	4 Years
Median Real Estate Fund	14.0%	12.7%	13.8%	14.8%
S&P 500 Index	6.5	8.0	10.6	12.3
Salomon Index	3.0	2.7	1.8	−2.0

Table II Rolling Five-Year Periods

Annualized Total Rates of Return (Gross of Fees)

	1972-1976	1973-1977	1974-1978	1975-1979	1976-1980	1977-1981
Median Real Estate Fund	9.1%	8.7%	10.3%	11.8%	13.1%	14.1%
S&P 500 Index	4.8	−0.3	4.3	14.8	13.9	8.1
Salomon Index	7.4	6.3	6.0	5.8	2.4	− 1.3

Foundation names 84 new CEBS's

■ Eighty-four persons have been designated as new Certified Employee Benefit Specialists (CEBS) by the Brookfield, Wisc.-based International Foundation of Employee Benefit Plans and the Wharton School of the University of Pennsylvania.

Nineteen percent of the new CEBS graduates are from the insurance field, 18 percent from corporations, 16 percent are with consulting firms, 12 percent in the banking industry, and 9 percent are from government agencies. Other industries represented include accounting, auditing, benefits administration, education, health care, trust companies, and labor unions.

A total of 414 individuals have been named CEBS's since the program was instituted in 1977. The graduates qualify for the professional designation by passing a series of 10 college-level national examinations on employee benefits subjects and meeting high standards of business and professional conduct.

The 1982 national CEBS recognition ceremony will take place in October at the Foundation's 28th Annual Educational Conference in Montreal, Canada.

Becker study says 1981 was a year of lost opportunity

■ For pension funds, 1981 was a year of missed opportunities, according to Warburg Paribas Becker-A. G. Becker, in its *Performance Characteristics 1981* study.

The report, a comprehensive analysis of Becker's 3,500-fund data base representing $130 billion in assets, depicts a year in which returns in cash equivalents such as Treasury bills were the highest in at least 50 years and bond returns were the highest since 1976. Funds, however, did not shift assets heavily into either sector. The year also had the lowest equity returns since 1977.

"As one might expect, total fund returns also did not keep up with inflation last year," says Albert Pisterzi, general manager of Becker's Funds Evaluation Division.

In 11 equity industry groupings, energy stocks had the lowest return of all, but they continued to lead portfolio commitment lists. Meanwhile, utility stocks—the top performers—ranked ninth out of 11 sectors in fund commitment levels.

Part of the problem facing pension managers, according to Pisterzi, was that for the five-year period, 1977-81, only three industry sectors—energy, transportation, and health—outperformed the Consumer Price Index (CPI). "Based on historical returns, one could have expected a high return in energy in 1981," Pisterzi says, "but that just proves how difficult it is to read the market."

The highest returns on equity portfolios were in low-beta, low-capitalization, and low-price/earnings-ratio stocks or high-dividend-yield portfolios. Banks and insurance companies had higher total fund returns than investment counselors due to lower equity commitments, but banks, unlike previous years, also achieved the best stock performance.

Annualized Returns

Becker Median Performance	**15 years 1967-81**	**10 years 1972-81**	**5 years 1977-81**	**3 years 1979-81**	**1981**
Equities	5.7	4.3	9.1	15.6	-5.0
Bonds	4.7	4.8	2.5	2.4	6.1
Cash Equivalents	NA	9.2	11.2	14.3	17.7
Total Fund	5.4	4.8	7.5	11.8	2.2
Market Performance					
Stocks (S&P 500)	7.1	6.4	8.0	14.2	-5.3
Bonds (Salomon Brothers)	3.1	3.0	-1.3	-2.6	-1.0
Treasury Bills	7.0	7.9	9.7	12.0	14.1
Consumer Price Index	7.2	8.6	10.1	11.5	8.9

NA = not available.

Source: A. G. Becker, *Performance Characteristics 1981*, p. 9.

Pension/real estate assn. formed

■ After more than a year of informal meetings, Pension Real Estate Investment Assn. has been formally organized in New York City. Thomas J. Gochberg, president of Smith, Barney Real Estate Corp., is president of the new association. Peter Aldrich, a principal of Aldrich, Eastman & Waltch, is the chairman.

According to the co-founders and chief officers, the association was organized to foster the dissemination of legal, regulatory, and tax information affecting the pension fund industry involvement with the real estate investment arena, and to promote prudent and protective investment practices for employee benefit funds participating in the real estate capital markets.

Members in the association include those organizations devoted to the investment of retirement plan assets in real estate. In addition to Aldrich and Gochberg, officers of the new association are Arthur Viner, Investors Central Management Corp., as treasurer; and John P. Tuzzolino, Smith, Barney Real Estate Corp., as secretary. Directors include Kenneth Campia, La Salle Partners; John Collins, Sutro Advisors; John Lillard, JMB Institutional Realty; Donald A. King, Jr., Rosenberg Real Estate Funds; Robert L. Kinney, Merrill Lynch Hubbard; Meyer Melnikoff, Goldman Sachs & Co.; and Aldrich, Gochberg, and Viner.

Voting membership in the association is confined to pension or profit-sharing plans that are exempt from Federal income tax and organizations providing real estate investment vehicles or services for pension or profit-sharing plans.

Associate members of the association are those that furnish services to the association or to any pension or profit-sharing fund or industry profession or trade that is allied to a pension or profit-sharing fund or that is associated with pension real estate investments.

Those interested in the information/educational services provided may become subscribers to the association.

Additional information on the new association is available from John Tuzzolino at Smith, Barney Real Estate Corp., 1345 Ave. of the Americas, New York, NY 10105, (212) 399-6666.

AUGUST 1982

Pension World

The Magazine for Plan Sponsors and Investment Managers/A Publication of

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Successful International Investing

State Funds Investing In Real Estate

Legal Framework Of Communications

Ninth Annual Survey Of State Retirement Systems

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Pension World

August 1982
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Features

Investment: A fundamental approach to international investing by Clinton J. Kendrick and Glenn Wellman 16
The key to success in investment in foreign securities lies in carefully plotted asset allocation, say these London-based executives of Alliance Capital Management.

Real Estate Highlight: Update: Public pension funds and real estate by Leslie Ellen Wohlman 22
Are public pension funds expanding more vigorously into real estate? *Pension World* follows up on a 1981 study of 10 of the largest state retirement funds to see what commitments they have made or intend to make in real estate.

Benefits Communications: Northern States Power sets stage for flexible benefits by Jerry E. McKinney 27
Before this Minneapolis-based utility company implemented a flexible benefits program in January, 1981, it took great care to communicate the design of the new plan. The firm's manager of compensation and benefits details how that process worked.

Investment Manager Profile: Ward & Wissner gears strategy to each plan by Ronald Derven 30
The philosophy of this New York City firm is to create for a pension client an investment approach geared to the client's specific objectives. This is accomplished, say the principals, through a combination of bonds, financial futures, and computer sophistication.

9th Annual Survey of State Retirement Systems 35
Pension World's exclusive analysis of 98 public retirement systems reports on how state portfolios are structured — where the money is invested and who is managing it.

Pension World Basics: Defined contribution vs. defined benefit plans by Elinor Merl 66
Since the passage of ERISA in 1974, activity in the legislative arena has enhanced the popularity of defined contribution plans. A benefit specialist at Citibank reviews the fundamental differences between defined contribution and defined benefit plans.

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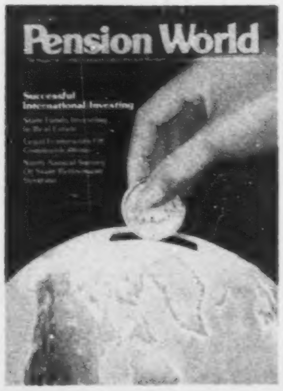

Cover: **In today's economic climate, international investing has found its place in nearly a third of the nation's corporate pension fund portfolios. A look at a basic approach in using this strategy begins on page 16.**

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International Pension World

Survey of private pension plans in the United Kingdom

The National Association of Pension Funds, the largest professional association of pension fund managers in the United Kingdom, recently released the results of its seventh annual survey of occupational pension plans.

The 1981 survey analyzed the responses of 93 pension plans in the public sector and 1,127 pension plans in the private sector. The employers operating these pension plans had an estimated 9.4 million employees, of whom 5.7 million (60 percent) were currently members of pension plans. In addition, there were 2.7 million pensioners and 586,000 deferred pensioners. The Government Actuary's 1979 survey (see *Pension World*, April 1981) estimated that there were some 90,000 occupational pension plans in the United Kingdom with a total membership of about 11.8 million employees and 3.7 million pensioners. However, 79,000 of these plans had fewer than 30 members. Hence, while covering a relatively small proportion of the number of pension plans in the United Kingdom, the National Association survey includes about half the total members of occupational pension plans.

Table I compares the main financial statistics of the pension plans participating in the 1981 survey with those for the previous year.

Survey findings

Income and expenditure and size of fund. It was estimated that the pension plans (excluding insured plans) covered by the survey (with some 5,658,000 members) have funds totaling approximately £48,633 million. The total annual contribution income to all plans was approximately £5,811 million, and the annual pension, lump sum commutation on retirement, and lump sum on death-in-service or retirement was approximately £3,142 million.

Nature of the pension plans. The survey covered a total of 1,220 pension plans (93 of which were in the public sector). Forty percent of these plans were staff plans, 15 percent works plans, and 45 percent combined plans.

Membership. The survey covered companies with some 9.4 million employees, of whom 5.7 million were members of plans. The total number of pensioners receiving pension benefits from the plans included in the survey was estimated to be 2.7 million. The plans also had 586,000 ex-employees with entitlement to deferred (preserved) pensions.

Investment medium. Sixty-eight percent of plans were privately invested, 15 percent insured, 16 percent insurance-managed fund units. Only 1 percent of plans were unfunded.

Additional plans. Thirty-five percent of companies had a topping-up or separate plans, and 11 percent provided a different benefit scale for their senior staff.

Conditions of entry. Eighty-three percent of plans made membership compulsory; 67 percent of plans imposed a minimum eligibility age of 21 or under, while 59 percent of plans imposed some maximum eligibility age. A minimum period of service was required by 46 percent of all plans.

by **VINCENT J. SIMONE**
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Members' contributions. Eighty percent of plans were contributory. Only 2 percent of contributory plans (all works plans) levied members' contributions as a flat rate per annum. Fifty-one percent of plans calculated contributions on basic earnings. The average contribution rate per member where contributions depend on salary was found to be approximately 4.5 percent of pensionable earnings for staff plans, 3.5 percent of pensionable earnings for works plans, and 4.4 percent for combined plans.

Company contributions — contributory plans. The average company contribution rate per member was approximately 12.3 percent of pensionable earnings for staff plans, approximately 7.1 percent of pensionable earnings for works plans, and approximately 10.8 percent of pensionable earnings for combined plans.

Company contributions — noncontributory plans. The average company contribution rate of pensionable earnings per member was approximately 18¼ percent for staff plans, 7 percent for works plans, and 17½ percent for combined plans.

Benefits

Normal retirement age. The majority of plans adhere to normal retirement age of 65 for males and 60 for females.

Normal retirement benefit. Only 3 percent of plans (covering some 120,000 members) calculated benefits on any basis other than final or final average salary. Flat rate plans were restricted entirely to works plans (with a total of 13,000 members).

Final and final average salary.

Table I Financial Comparisons

	1981 (Millions £)	1980 (Millions £)
Estimated market value of funds (excluding Insured Schemes)	46,633	36,860
Estimated annual contribution income	5,811	4,890
Estimated annual pension outlay	1,943	1,752
Estimated lump sum commutation payments (and lump sums on retirement as of right)	897	517
Estimated lump sum death benefits	302	202

"Average salary over the best three consecutive years ending in the last 10 years" was the most frequent definition of salary for pension purposes in plans providing benefits related to salary near retirement.

Integration with social security. Twenty-four percent of plans made some specific adjustment of the amount of pensionable pay on which contributions are paid, and 17 percent of plans made some specific adjustment by offsetting the state pension against the occupational pension. Eighty-four percent of "contracted-out" plans (see *Pension World*, June 1982) gave an accrual rate equivalent to "1/60" (or better) while only 54 percent of "participating" plans did so.

Early retirement (ill health). Ninety-eight percent of all plans provided an immediate pension on a member's retirement on the grounds of ill health.

Death-in-service benefits. Virtually all plans provided at least a widow's pension or lump sum on death-in-service. Ninety percent of plans paid a lump sum as well as a widow's pension. The most common level of widow's pension was equal to one-half the member's pension. The most common level of lump sum benefit was between two and 2½ times salary for both males (married and single) and females. Thirty-one percent of plans provided an automatic widower's benefit if he was a dependent, while 24 percent of plans provided a benefit whether he was a dependent or not. Seventy-two percent of plans provided children's benefits.

Death-in-retirement benefits. Ninety-six percent of all plans gave death-in-retirement widow's pensions as a right. Eighty-seven percent of those plans gave death-in-retirement pensions of one-half the member's pension. Thirty-four percent of plans gave death-in-retirement pensions for dependent widowers, while only 26 percent of plans provided the benefit for an independent widower.

Pension guarantee. Seventy-nine percent of plans provided a pension guarantee. The most common guarantee was five years.

Early retirement (other than ill-health). Ninety-four percent of plans had a provision for employees to retire voluntarily, while only 83 percent of plans had a provision for employees to be retired early at the instigation of the employer. Fifteen percent of plans made additional discretionary payments where retirement was at the instigation of the employer.

Commutation options. Ninety-seven percent of plans provided members with the option to commute part of their pension for a lump sum at retirement, while 88 percent of plans had the facility to commute trivial pensions entirely.

Escalation of pensions. Thirty-nine percent of plans guaranteed to increase pensions in payment and another 51 percent of plans gave non-guaranteed increases of pensions in payment. The most common rate of guaranteed escalation was between 3 and 4 percent per annum.

Interchange arrangements. Ninety-six percent of plans are able to transfer pension rights to another employer's plan, while 94 percent of plans are able to receive transfer payments.

Additional voluntary contributions. Seventy-eight percent of plans allowed members to make additional voluntary contributions (AVC's).

Social Security Pensions Act

The decision to contract out or to participate in the state plan. Seventy-six percent of plans, representing 93 percent of the total membership of all plans in the survey, have elected to contract out of the state plan.

Treatment of early leavers (amongst contracted-out plans). Sixty-four percent of plans have chosen the fixed revaluation of GMP's. The analysis shows that 75 percent of public sector plans have chosen full revaluation while only 5 percent of private sector plans have done so.

Copies of the complete 58-page survey are available from the NAPF, Sunley House, Bedford Park, Croydon, CRO OXF, England. ☐

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Real Estate Highlight

Update: Public pension funds and real estate

by **LESLIE ELLEN WOHLMAN**
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Are public pension funds expanding more vigorously into real estate? *Pension World* first examined this question last fall (October, p. 17) by interviewing the investment managers and gathering information on 10 of the largest state retirement funds in the U.S. To update the 1981 data, interviews with the in-house investment advisors of nine of these systems have been repeated.

The funds represented in these interviews were the Public Employees Retirement Systems of California (PERS), Michigan State Employees Retirement Systems, New York State Common Retirement Fund, New York State Teachers Retirement System, North Carolina Retirement Systems, Public Employees Retirement System of Ohio, Pennsylvania State Employees Retirement Fund, Teacher Retirement System of Texas, and State of Wisconsin Investment Board. The total assets managed by these systems represent over $72 billion.

The growing importance of pension funds as a source of real estate financing is primarily the result of a changing economic and legal environment. The impact of unprecedented inflation over the past several years has created an important change in both traditional sources of real estate capital and financing. Life insurance companies and thrift institutions, which have been the major sources of real estate investment funds, historically enjoyed a relatively predictable positive cash flow. That, however, is no longer the case. Continuing inflation and the high interest rates available from short-term money market instruments have caused a major change in institutional and individual investor sentiment.

Pension funds are today the largest pool of predictable cash flow in the country and thereby constitute the principal (if not the sole) remaining financial institution that can afford lending long. The erratic performance of the credit and equity markets, moreover, has provided a spur to pension fund managers to invest in tangible assets such as real estate, whose value has historically increased more rapidly than the rate of inflation. The enactment of the Employee Retirement Income Security Act (ERISA) in 1974 encouraged portfolio man-

Chart I Asset Diversification — Today

	Calif.	Mich.	N.Y. Common	N.Y. Teachers	North Carolina	Ohio	Penn.	Texas	Wisc.
Fixed Income	(Percentage of Total Assets as of 6/30/82)								
Federal Government & Agency Bonds	6%	19%	38%	12%	1%	2%	8 %	16%	2%
Corporate Bonds	42	35	16	35	73	54	45.6	14	49
Short-term Investments (Notes, Bills, C.D.'s, etc.)	1	6	5	4	1	16	13.6	2	5
Government-Insured Mortgages	5	20	2	5	1	5	12.7	2	0
Conventional Mortgages	—	[1]	12	9	—	—	—	5	5
Net Lease Credit Mortgages	2	—	—	—	—	—	—	2	5
Pass-Through Securities, i.e., Ginnie Maes, Freddie Macs	13	[2]	2	—	7	3	4.5	29	4
Other	—	—	—	3	—	3	—	—	—
Fixed Income as % of Total Assets	69	80	75	68	83	83	84.4	70	70
Equity									
Common Stocks	30	19	25	32	15	17	15.1	30	30
Real Estate	1	1	—	—	—	—	.5	—	—
Other	—	—	—	—	2	—	—	—	—
Equity as % of Total Assets	31	20	25	32	17	17	15.6	30	30
Total Assets (billions)	$17	$6.6	$15.4	$9.2	$5.6	$6.4	$ 5.6	$6.9	$ 5

[1] Included in government-insured mortgages.
[2] Included in Federal government and agency bonds.

agers to diversify their holdings, thus opening the door for more aggressive investment in real estate.

Today's asset diversification

As shown in Chart I, the state funds have invested the majority of their holdings in fixed-income securities, ranging from 68 to 83 percent of their total assets. The largest percentage of the fixed-income securities is in the corporate bond category, followed by pass-through securities (i.e., Ginnie Mae's), then Federal government and agency bonds.

Conventional and net lease credit mortgages constitute an increasing amount of most of the funds' assets. For example, the three largest funds (PERS/California and both New York State funds) have invested significant amounts in mortgages: 11.5 percent of the assets of the New York State Teachers Fund and 9 percent of the New York State Common Retirement Fund are invested in conventional and participating mortgages; PERS/California has been a major investor in credit mortgages, with over $340 million of these investments in its portfolio.

Equity investments presently consist almost exclusively of common stock holdings. Most of the funds currently do not have significant holdings in real estate equity investments, primarily because of statutory restrictions. By contrast, PERS/California does have the legal authority to make equity investments and over the past year has made substantial commitments to purchase real estate.

Mel Petersen, chief of investments, PERS, expresses his view of fixed-income securities — a response typical of the other advisors:

> Fixed-income securities are presently offering a significant premium over the current inflation rate, which has recently abated. Some funds are investing substantial amounts today in real estate equities and common stocks and are not taking advantage of the historically high premiums being offered in fixed-income securities. We have a long-term philosophy and have continued to invest in fixed-income securities.

Chart II Creative Financing Vehicles Used by the State Pension Funds (1981 Commitments)

1. *Participating Mortgage* — $40-million participating mortgage on a 400,000-sq. ft. office building — 14 percent coupon plus 35 percent of adjusted gross income above the break-even amount. Strict call provisions include a capitalization of the average last three years of adjusted gross income by 10 percent.

2. *Convertible Participating Commercial Loan* — $6-million loan on 10 acres of land improved with a 221,952-sq. ft. net rental area industrial building, 12.5 percent coupon plus 50 percent of 1) the net operating income of the property; 2) all refinance proceeds; 3) all sales proceeds; 4) appreciation of the property during the term of the loan. The pension fund anticipates a 16.83 percent internal rate of return on a 15-year *pro forma*, assuming property income increases and property appreciation of 7 percent per annum compounded every five years, and receipt by the system of 50 percent of the property appreciation. 30-year term with a 30-year call protection. The system has an option to acquire 50 percent ownership of the property during the 15th loan year. $5 million initial funding in May, 1982, and a rental achievement funding of $1 million no later than May, 1983, providing that the portion of the property is leased to a tenant satisfactory to the pension fund.

3. *Leasehold Participating Mortgage* (Disneyland Hotel, Anaheim, California) — 14.5 percent coupon plus 12 percent of excess gross revenues above $23 million. The minimum guaranteed return is 16 percent annually; any annual shortfall will be paid out as a balloon payment by 1993. The gross revenues are defined as gross room rentals minus promotional rooms and uncollectibles.

4. *Accruing Mortgage* — $20-million commercial loan by a first mortgage on land and improvement with an assignment of lease to a credit-worthy tenant. 13 percent coupon in loan years one through 15 with an interest differential of 4 percent per annum accruing each year. The 4 percent accruing in years one through 15 will be paid by the pension fund accepting full payment at the end of the 20th year or the pension fund becoming a 25 percent owner of the subject property.

5. *Credit Net Lease Mortgage* — $15-million commercial loan secured by five retail stores and land located in the Southwest leased to an A-rated credit tenant. 16.5 percent monthly coupon, 25-year term. Interest only during the first 10 years with monthly payments thereafter to amortize fully the loan during the last 15 years. 12-year call protection with a prepayment penalty of a 5 percent premium declining by ½ percent per year.

6. *Equity Purchase/Leaseback* — $20-million purchase of a 200,000-sq. ft. office building and six acres of land. Current coupon of 9 percent. Rent and expense stops are adjusted at the end of the fifth and 10th years based on the Consumer Price Index (CPI), with a maximum increase of 6 percent compounded annually. The pension fund expects a 17.5 percent internal rate of return, assuming 6 percent CPI rent adjustment compounded annually and sale of the property at the end of the 10th year.

Most of the states plan to increase significantly their investments in net lease credit mortgages. These investments are based on both the credit worthiness of the tenant and on the intrinsic value of the real estate. Since these vehicles share the characteristics of a corporate bond and mortgage security, they will enable pension fund managers to utilize their financial acumen gained in the stock and bond markets.

Investing in real estate

The pension funds interviewed are slowly and conservatively making real estate investments. However, they are being besieged by requests from the real estate community and perceive real estate today as a market out of kilter. With all these people calling on them, the pension fund managers' belief that now is not the time to take the plunge into real estate is reinforced.

Robert McLaughlin, assistant director/investment officer of the Public Employees System of Ohio, worked diligently over the past few years to get legislative authority to invest in real estate. However, since last year when the system finally received this authority, that fund has not invested any money in real estate projects. McLaughlin expresses his skepticism:

> Why is real estate so popular today? Is it history or future? We feel that the rapid increase in the value of real estate projects that was realized in the '70's may not necessarily be repeated in the '80's. Furthermore, if the present recessionary environment continues, real estate projects might, in fact, decline in value over the next few years.

Kenneth Codlin, executive director of the State of Wisconsin Investment Board, expresses this view:

> Real estate investments can help *diversify* a pension fund's portfolio. During the 1970's when both the stock and bond markets — the traditional investment vehicles of pension funds — gen-

erally did not perform well, good quality real estate generally increased in value. During the '80's, real estate will continue to be a useful diversification tool, even if the stock and bond markets return to a better performance record. An important purpose served by good quality real estate for a pension fund is to secure more consistent investment results under varying economic conditions.

New financing vehicles

As a result of the difficulty for new properties to pay the currently high financing costs during their early years of operation, many new financing vehicles have developed, e.g., participating mortgages, accruing mortgages, convertible debt/equity. (See Chart II for illustrations.) These new vehicles enable the financial institution to share in the increased cash flow and value of the property over a period of time while the owner/developer pays lower financing costs in the early years. Furthermore, the tax benefits that result from the depreciation of the property are used by the owner/developer or a limited partnership. If the pension fund had been the equity owner, the depreciation benefits would be wasted since pension funds are tax-exempt entities.

The most frequently used financing vehicle by the funds is the participating mortgage — whereby there is guaranteed a fixed minimum coupon (typically 12 to 14 percent), plus a participation in the adjusted gross income of the property (ranging from 25 to 35 percent of adjusted gross income). This enables the pension fund to share in the increased cash flows from the property with significant upside potential if the leases are renegotiated at increased rental rates. The fund is getting a lower-than-market guaranteed coupon today for what is hoped will be a higher coupon in later years. However, if demand for space in that particular real estate market does not remain strong, the leases could be renewed at lower rates; hence, the anticipated higher coupon may not be possible.

SAN BERNARDINO COUNTY CHOSE GRUBB & ELLIS TO MANAGE THEIR 30 ~~$20~~ MILLION* REAL ESTATE INVESTMENT.

WHY?

Excerpts from a conversation with John Leach, Chairman of the Investment Committee, Board of Retirement, San Bernardino County Employee's Retirement Association, regarding the management of the Board's $30 million real estate investment.

QUESTION: *How did you choose between banks, insurance companies, and real estate companies to manage your investment?*

LEACH: We interviewed some impressive contenders in financial institutions, but chose a full service real estate company.

These new creative financing vehicles are structured to maximize the economic benefits of the transaction for both the pension funds and developers. Several of the pension funds, however, discussed problems they are encountering.

1. *Time to negotiate.* "These new financing vehicles are so varied and complex that we are spending too much time negotiating how to negotiate in these transactions."

2. *Guaranteed vs. promised rate of return.* "The fixed-rate mortgage is simpler to negotiate and has a guaranteed return. A pension fund should be seeking a guaranteed return to meet its future liabilities, not a promised return."

3. *Complexity of legal and tax issues.* "There are many unclear legal and tax issues that arise when structuring a transaction with these new financing vehicles, such as:

- "Which party takes the depreciation of the property when the pension fund has a conversion option to a partial equity ownership position?
- "Is there a potential problem for clogging of the equity of redemption in a convertible debt/equity issue?
- "With a participating mortgage, how does a pension fund participate in the future increases in the cash flow of the property without these additional funds being subject to an unrelated business income tax?"

The Public Employees Retirement System of California has been a leader in a variety of creative financing vehicles, including participating mortgages, accruing mortgages, and convertible debt/equity. Robert Carlson, president of the Board of Administration for the PERS System, expresses why it has been using these creative financing vehicles:

> These new vehicles maximize the economic benefits of the transaction. The public funds are increasing their investment yields, while the depreciation is held by the parties that can use these tax benefits.

Grubb & Ellis, because we wanted a team with experience in the right locations and its own computer data collection network for finding the best properties. We were especially interested in the Sun Belt and West Coast: Grubb & Ellis has offices in these locations, plus the best data bank in those regions.

Also, we were interested in other services such as property management, that Grubb & Ellis could provide at highly competitive prices.

QUESTION: *Were you concerned that they would favor their own divisions, for example, commercial brokerage, contrary to your best interest?*

LEACH: Yes, we thought about that: it comes down to believing in the integrity of the team and in their determination to build a performance track record with you. Also, we felt that a publicly held independent company like Grubb & Ellis had suitably long term goals.

QUESTION: *Did the size of your investment enter into your decision?*

LEACH: We are investing in excess of $20 million over two years in real estate. The continual re-evaluation and maximization of a real estate portfolio of that size requires not only experienced professionalism but also considerable computerized data management capability: we chose a team that was up to the task.

QUESTION: *What about fees?*

LEACH: Remuneration as a percentage of overall investment did not vary much between companies: however the Grubb & Ellis fee system rewards performance because it is geared to asset appreciation. We felt that was important.

For further information on Grubb & Ellis services for pension fund managers, contact:

Terry P. Noyer
Vice President, Property Services Division
Grubb & Ellis Company
1333 Broadway, Oakland, CA 94612
Phone: (415) 839-9600

*After the first four investments were made, the Board increased their committment by fifty percent.

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Socio-political pressures

Current economic difficulties have substantially increased public and political awareness of the nation's pension funds. During the past year, there have been several proposals to redirect the $750 billion aggregated in the nation's pension funds toward investments that will help solve the country's economic problems. Specifically, some state legislatures have asked their public funds to subsidize the ailing housing industry with below-market-rate loans.

Most of the investment advisors reacted strongly to the question: "What is your investment response to the social and political pressures to help the housing industry financially?" The overall reaction was succinctly answered by one fund's response: "unprintable."

Clark Manning, investment officer of the Teacher Retirement System of Texas, expresses his investment philosophy:

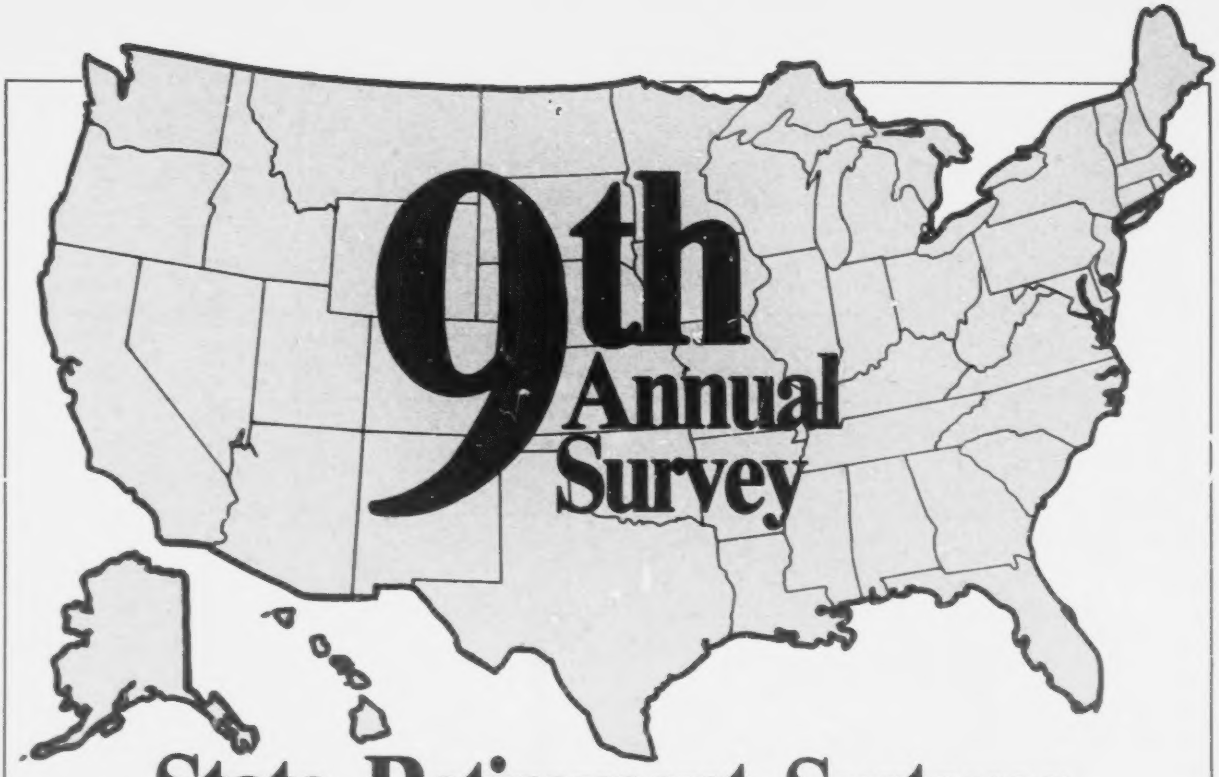
> Investments should be viewed on their investment merits for the beneficiaries of the system. Certainly they will have a significant impact on the future well-being of the economy and a residual beneficial social effect. The responsibility of our pension fund is to maximize our investment returns for the retirement benefits of over one-half million people in the system.

Blake Eagle, senior vice president, Frank Russell Co., who is consultant to some of the largest funds in the U.S., says:

> The public fund's sole responsibility is to have the assets invested so that they can meet the future liabilities of a retired person's needs. The fund's assets should be invested to maximize the highest possible rate of return at a minimum amount of risk in order to meet those future liabilities.

Conclusion

The investment officers of these nine state funds indicated their belief that public funds generally will be a major source of real estate capital in decades ahead. They view real estate investments as a diversification tool that will help them meet their future financial liabilities under varying economic conditions for the retirement benefits of their members. ☐



9th Annual Survey

State Retirement Systems

■ Forty-nine states and the District of Columbia are included in *Pension World*'s 1982 State Retirement Survey, with a total of 98 public retirement systems. The investment data that follow were compiled from responses to *Pension World*'s questionnaire, which was mailed during April, 1982, to the administrators or directors of investment of 102 state systems. Answers received represent a 96.1 percent response rate. The Judges Retirement System of the State of California, District of Columbia systems, Georgia Peace Officers and Sheriffs Retirement Funds, Missouri Local Government and State Employees Retirement Systems, Nebraska School Retirement Fund, New Hampshire Retirement Systems, and Highway Patrol Retirement System of Ohio are new to the universe this year. The following statistics refer to the 87 systems included in both 1981 and 1982.

Last year's data indicated that 26 percent of the state retirement systems reporting had added for the first time or significantly increased their use of external advisors. This trend appears to have leveled off. Despite some changes in the lineup of firms actually handling money for state funds, only six funds report changing the *structure* of their fund management in 1982. Three added non-discretionary investment advisors, one added a discretionary real estate manager, and two dropped their discretionary managers and moved their funds in-house.

With few exceptions, the gains of 20 to 30 percent or more shown by state funds during the past several years also appear to have dropped significantly during the turbulent 1981-82 reporting period. With holdings of each state's funds combined, only five states showed increases, on a dollar-for-dollar basis, of 30 percent or more: Georgia, Minnesota, Missouri, Washington, and Wyoming. Two states increased 20 to 29 percent, 20 states increased 10 to 19 percent, 15 states increased 0 to 9 percent, and 6 states showed a negative return for the period. However, in light of the overwhelmingly negative 1981-82 returns for many published indexes, these overall returns represent a respectable showing for the public retirement sector.

Several points should be noted for accurate interpretation of the following survey.

- All figures are at cost unless otherwise noted and are based on completed responses to the *Pension World* questionnaire.
- Where breakdowns were provided by the state systems, government-insured mortgages are included in the "Mortgage" category and noted as such.
- Because some states included receivables, the value of office equipment, etc., in the figure for "Total Assets" but did not show these miscellaneous items under individual categories, the investment breakdowns for some systems may not add up to the figure given for "Total Assets."
- Where funds are described as "internally administered," any investment advisors listed are non-discretionary unless otherwise noted. Where "discretionary" appears in the listing of advisors, it refers to all firms listed.
- Investments in the "Other" category, where itemized by individual systems, include: gold, convertibles, GIC's, CD's, private placements, foreign securities, Canadians, index fund, government-guaranteed loans, accrued interest, receivables, annuities, venture capital, and ground rent.

Corporate bonds (in millions $)	Mortgages (in millions $)	Other real estate (in millions $)	Cash and short-term securities (in millions $)	Other (in millions $)	Reporting date	Investment advisors
1,954.4 (bk.)	45.3 (bk. — private) 859.8 (gov't-backed)		659.6 (bk.)		3/31/82	Mellon Bank (discretionary — stocks and bonds); Fidelity Bank of Philadelphia (discretionary — real estate)
863.3 (mkt.)	217.5 (mkt. — direct) 141.5 (mkt. — mortgage-backed)		260.7 (mkt.)		12/31/81	Mellon Bank, Alliance Capital Management, Miller, Anderson & Sherrerd (discretionary); Philadelphia Savings Fund Society (non-discretionary)
130.5	11.1 (gov't-backed)		74.7		6/30/81	Internal administration
848.3	174.6 (gov't-backed)		318.3	447.1	5/31/82	Internal administration; Jamison, Eaton & Wood, Inc.
			41.1 (mkt.)	849.7 (mkt.)	6/30/81	Internal administration; Eagle Management & Trust Co.
675	75 (gov't-backed)		120		2/28/82	Internal administration; E. F. Hutton & Co.
1,690 (bk.)	65 (bk. — private) 1,408 (bk. — gov't-backed)		109		8/31/81	Internal administration; Thorndike, Doran, Paine & Lewis
485	19 (gov't-backed)	71	148		4/30/82	Internal administration; Capital Consultants, Inc., Eagle Management & Trust, Smoot Knoche & Co., Trust Co. of the West, Value Line Asset Management
9.9	15.1		8.2	25.1	3/31/82	Delaware Investment Advisors, Colonial Management Associates (discretionary)
18	7.5 (private) 2 (gov't-backed)		6.8	13.3	3/31/82	Loomis, Sayles & Co., Brundage, Story & Rose, Colonial Management Associates (discretionary)
389.2 (mkt.)	9.1 (mkt. — gov't-backed)	100.4 (mkt.)	180.5 (mkt.)	108.2 (mkt.)	4/1/82	Bank of New York, Batterymarch Financial Management, Delaware Investment Advisers, MacKay-Shields Financial Corp., Putnam Advisory Co., Fayez Sarofim & Co., Massachusetts Financial Services, Equitable Life Assurance Society of the U.S., Prudential Insurance Co. (discretionary)
1,044	280 (private) 1,096 (gov't-backed)		730	118	5/31/82	Internal administration; Batterymarch Financial Corp., Columbia Management Co., Torray Clark & Co., Loomis Sayles & Co.
151.0	108.0 (gov't-backed)		91.6		12/31/81	Internal administration; Loomis, Sayles & Co.
2,300	185 (private) 200 (gov't-backed)	15	1,200	200	4/30/82	Internal administration
249.4	33.5 (gov't-backed)		4.6		3/31/82	Internal administration; Alliance Capital Management Corp.

SEPTEMBER 1982

Pension World

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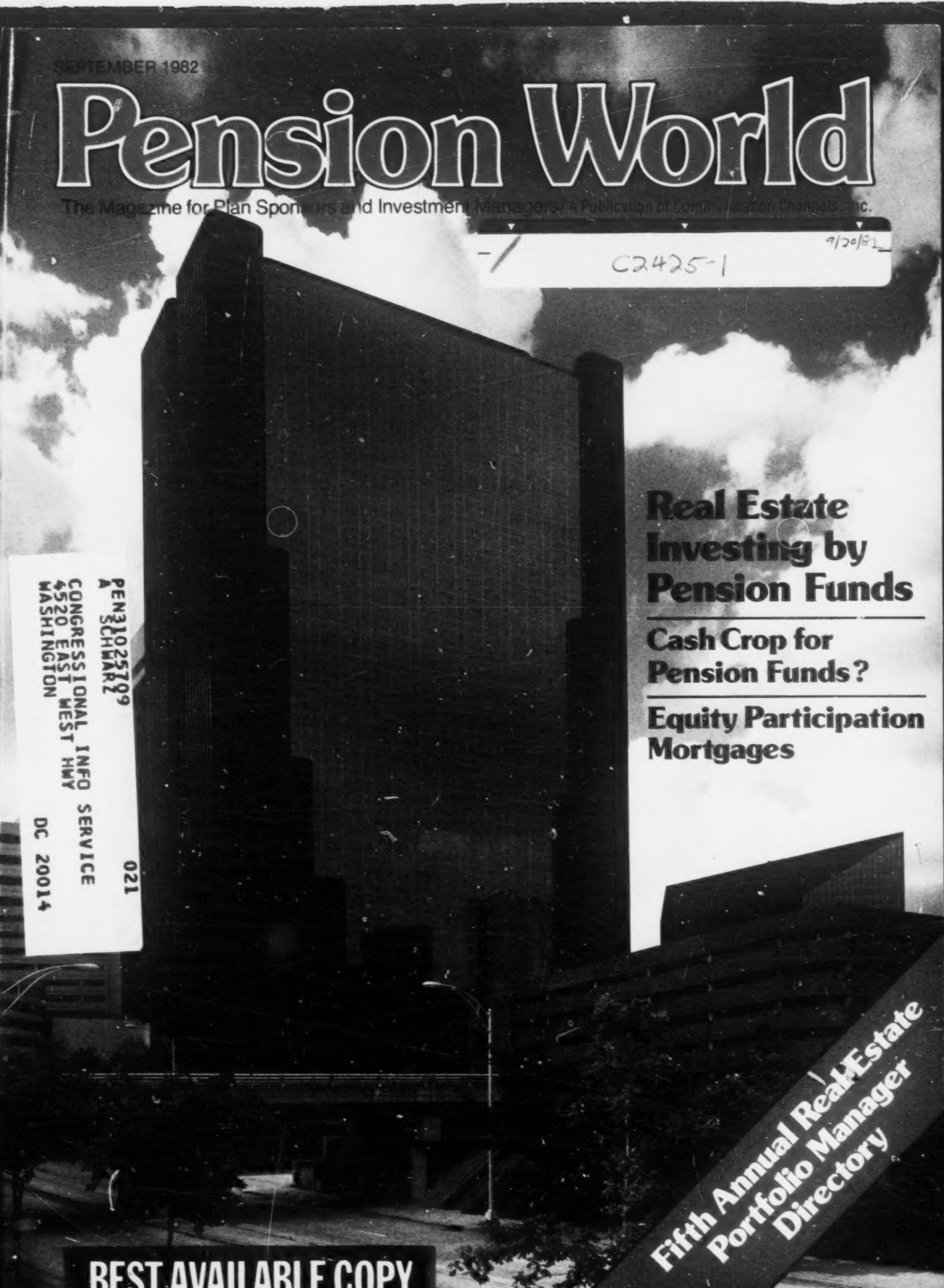

Real Estate Investing by Pension Funds

Cash Crop for Pension Funds?

Equity Participation Mortgages

Fifth Annual Real Estate Portfolio Manager Directory

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Pension World

September 1982
Volume 18 Number 9

The Magazine for Plan Sponsors and Investment Managers/A Publication of Communication Channels, Inc.

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Money Market Directories, Inc., releases its latest data on plan sponsor interest in real estate and looks at the investment trends that may be developing for this vehicle.

Real Estate: Prospects for pension fund investment in 1982 by Robert L. Kinney 33
The vice president and manager of Institutional Asset Management at Merrill Lynch Hubbard reflects on factors affecting pension fund investment in real estate and the changing roles of open- and closed-end real estate funds.

Agricultural Real Estate: Cash crop for pension funds? by William B. Sayre 43
The lack of U.S. pension fund interest in U.S. agricultural property is remarkable considering the historical returns of this sector, says the vice president of Agricultural Property Management at Continental Illinois Bank.

Investment Manager Profile: Bernstein method requires research and discipline by Ronald Derven 51
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5th Annual Real Estate Portfolio Manager Directory 57
Pension World's exclusive listing of real estate portfolio managers includes more than 85 firms currently handling pension funds, plus their returns on investment, fee structures, participation offered, breakdown of investments in real estate, and more.

1982 Pension Funds and Real Estate II Conference 73
As a wrap-up of its second annual conference on pension fund investing in real estate, *Pension World* highlights the assessments of panelists and guest speakers from the two-day June meeting.

Pension World Basics: Real estate: equity participation mortgages by Richard T. Garrigan 96
Equity participation mortgages provide some of the advantages of equity ownership together with the preferred return and senior security position of mortgage debt. Here, the author details the general characteristics of EPM's and the role that they can play for pension funds.

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***Cover:* Real estate continues to be of interest to pension funds, even though their commitment of asset dollars may not be as great as real estate professionals would like. *PW*'s coverage of real estate investing begins on page 15.**

Cover Photo: Charlotte Plaza, Charlotte, N.C. Photo courtesy of Trammell Crow Co., Dallas, Tex.

BPA

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1982 Survey

Real estate investing by pension funds

Twenty-six billion dollars in new real estate equity investments will be added to pension portfolios throughout the next three years. This is the largest commitment ever forecast by any of the six real estate surveys that have been conducted by Money Market Directories, Inc., since 1975.

In May, 1982, real estate investing questionnaires were mailed to senior investment officers of 1,200 of the largest corporate and public pension funds, representing $537 billion in assets. This group comprises 80 percent of total pension assets.

Two hundred fifty-eight questionnaires were returned, a response rate of 22 percent. The 258 respondents have $138 billion in pension assets and account for 26 percent of the assets among the largest 1,200 funds. These respondents intend to invest $6.5 billion in equity real estate during the next three years. Based on the above facts, the survey forecasts that the 1,200 major corporate and public pension funds will commit $26 billion to equity real estate during this period.

The most significant findings of both the 1981 and 1982 surveys are summarized below.

Current Ownership	**1981**	**1982**
Number of respondents	205	258
Number of funds owning real estate	90	120
Percentage owning real estate	44%	47%
Total portfolio assets of real estate owners	$ 40 bil.	$ 68 bil.
Total real estate owned	$ 2.3 bil.	$ 4.4 bil.
Commingled real estate	$ 1.6 bil.	$ 2.7 bil.
Direct real estate ownership	$ .7 bil.	$ 1.7 bil.
Real estate as a percent of portfolio assets	5.8%	6.5%
Average real estate investment per fund	$ 25 mil.	$ 37 mil.

Anticipated Purchases During Next 3 Years	**1981**	**1982**
Number of funds planning purchases	122	140
Percentage planning purchases	55%	54%
Total portfolio assets of purchasers	$ 42 bil.	$103 bil.
Total future real estate to be purchased	$ 3.2 bil.	$ 6.5 bil.
Commingled real estate	$ 1.6 bil.	$ 1.9 bil.
Direct real estate ownership	$ 1.6 bil.	$ 4.6 bil.
Real estate future purchases as a percent of portfolio assets	7.6%	6.3%
Average real estate commitment per fund	$ 26 mil.	$ 46 mil.

Some real estate professionals are predicting a slowdown in new real estate purchases by pension funds because of disinflation and the expectation that the current real estate cycle is near its peak. However, the results of the 1982 survey do not indicate that this will occur. The survey results have been reinforced by follow-up telephone conversations with pension officers who stated that they are in the real estate market for the long run and view the current softness in real estate as an opportunity to increase their real estate ownership.

Pension funds have different investment criteria than taxable investors. The only reason for a pension fund's existence is to pay benefits to retired workers over a long period of time in the future. When

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The information contained in this survey has been researched, edited, and copyrighted by Money Market Directories, Inc., publishers of the Money Market Directory of Pension Funds and their Investment Managers, *the encyclopedia of pension funds with assets over $700,000 and their investment advisors. Included in Money Market Directories' data base is real estate ownership by all major U.S. pension funds. For further information, contact David Bowerman, Vice President, 300 East Market St., Charlottesville, VA 22901, (800) 446-2810.*

this fact is recognized by the real estate industry, it will realize that short-term price fluctuations in real estate will have little effect on the buy/sell decision of pension funds.

Real estate ownership targets. It has been well documented that a few pension funds have decided to reduce their real estate ownership in open-end commingled funds because they are over or near their target for real estate ownership. This has occurred not only because of the strength of the real estate market but also because of the relatively poor performance of the financial equities markets. Both these factors have worked to push real estate investments, as a percentage of total portfolio assets, above some of the target levels set by pension funds. The survey found that as funds approach their real estate ownership target, they *do* scale back their purchases. However, the majority of funds are not even close to their targets, and real estate purchases will remain at a high level.

By evaluating three separate groups of respondents who currently own real estate, the observations above can be documented as shown in the chart below.

		Current R.E. Ownership		**Additional R.E. Purchases Planned**		**Planned R.E. Target**	
	No. of funds	**% of Portfolio**	**$ Bil.**	**% of Portfolio**	**$ Bil.**	**% of Portfolio**	**$ Bil.**
Group 1	57	6.6%	$1.2	3.4%	$ .6	10.0%	$1.8
Group 2	24	4.1%	.2	5.5%	.3	9.6%	.5
Group 3	24	2.7%	.4	7.6%	1.2	10.3%	1.6
Summary	105	4.6%	$1.8 Bil.	5.3%	$2.1 Bil.	9.9%	$3.9 Bil.

As can be seen, the lower a respondent's current real estate ownership, the higher the anticipated real estate investment during the next three years. The average target for real estate ownership as a percentage of portfolio assets is currently near 10 percent.

Direct real estate participation. For each of the previous two years, anticipated real estate equity investments were split between direct ownership and commingled funds. This year there has been a dramatic shift toward a preference for direct ownership. Of the $6.5 billion in new real estate investments in the sample, $4.6 billion is targeted for direct ownership and only $1.9 billion for commingled funds.

Most of this increase in the desire to own property directly is the result of public funds becoming more active in the real estate market. Public funds account for $3.2 billion of the planned $4.6 billion marked for direct investments.

Last year's survey minimized the intentions of public funds to invest significantly in real estate. Citing state laws that limit many public funds to intrastate purchases and the difficulty of locating sufficient prime property within their locality, the survey concluded that the actual real estate investment of public funds would not be as large as planned. Past surveys had indicated also that while real estate investing intentions were very solid, follow-through was often poor. As the charts below demonstrate, the survey obviously underestimated the state funds' determination.

Current Ownership	**1981**	**1982**
Number of public funds owning real estate directly	8	9
Total real estate owned directly	$77 mil.	$1,174 mil.
Number of public funds owning commingled funds	1	5
Total commingled fund investments	$ 8 mil.	$ 189 mil.

Anticipated Real Estate Ownership	**1981**	**1982**
Number of public funds planning to purchase real estate directly	9	11
Total real estate to be purchased directly	$632 mil.	$3,158 mil.
Number of public funds planning to purchase commingled funds	5	14
Total amount of commingled purchases	$245 mil.	$ 626 mil.

The actual public fund commitment to real estate increased enormously during the past 12 months. The current real estate holdings of the sample group of public funds actually exceed the real estate holdings of all public funds as identified in the *1982 Money Market Directory*. Clearly, public funds are dramatically increasing their real estate investments.

The fact that these public funds are limited in their ability to participate in commingled funds, which are diversified regionally and nationally, has resulted in most of the present emphasis on direct ownership of real estate to satisfy their investment criteria. However, this may not continue to be the case as more public funds lobby their respective state legislatures to liberalize their investment restrictions and to allow interstate investments in real estate, thus enabling more commingled fund participation.

The other factor for increased direct ownership is a result of the *acceptance* of real estate as a pension fund investment. Corporate pension fund managers have said that they started with bank and insurance commingled funds because they were relatively easy and safe decisions. The managers knew they could learn about real estate investing and gain knowledge for the future. Now, they are looking for more direct involvement in real estate by use of a real estate advisor and by having a portion of their real estate managed individually. By investing directly, they plan on increasing their investment return by having a "hands-on advisor" closely manage their real estate portfolio. The portfolio is specifically designed to achieve their fund's investment objective, and they are willing to assume more risk in exchange for a potentially higher return.

Commingled fund participation. Examining the anticipated pension fund investments in commingled real estate funds, one finds a shift in preference for the type of commingled fund sponsor. In past years, the majority of assets directed to commingled funds were flowing to insurance companies, as the chart below indicates.

Anticipated Commingled Investments

1981		Sponsor	1982	
Amount	Percent		Amount	Percent
$ 324 mil.	20%	Bank	$ 392 mil.	21%
$ 890 mil.	55%	Insurance Company	$ 703 mil.	38%
$ 405 mil.	25%	Independent Real Estate Advisors	$ 760 mil.	41%
$1,619 mil.			$1,855 mil.	

Independent real estate commingled fund advisors are now receiving slightly more attention than the insurance-company-sponsored funds as the sponsor of choice. Industry sources report this is because large institutions are losing some of their most qualified investment talent to the independent real estate advisors, and pension fund officers have a strong desire for a continuity of management expertise.

The primary reason, we believe, is that pension funds have entered a transitional period similar to what occurred when pension funds moved into financial equities in the sixties to improve their investment return. They turned to their fixed-income managers — the banks and insurance companies — to manage their equity portfolios.

Similarly, the insurance companies and banks were the organizations that first developed the method for pension funds to invest in real estate. They were experienced in real estate investing, and the pension funds had confidence in them because of their past fiduciary relationship with them in stock and bond management.

Now, real estate ownership has been accepted by many pension funds, and independent real estate portfolio managers have developed a track record of success and proven themselves as fiduciaries. Therefore, the current diversification among all types of commingled fund sponsors seems only natural.

Real estate financing. Much has been said about the real estate industry being short of long-term capital and about pension funds becoming its major supplier. It is estimated that between $100 billion to $200 billion will be required annually to finance real estate development throughout the 1980's. The information below provides an indication of how much capital pension funds will be willing to supply at today's rates of return.

Mortgages & Financing

Current			Anticipated Next 3 Years	
1981	1982		1981	1982
$1,678 mil.	$2,757 mil.	Conventional Mortgages	$ 366 mil.	$ 428 mil.
$ 106 mil.	$1,063 mil.	Equity Participation Mortgages	$ 486 mil.	$ 578 mil.
N/A	$ 821 mil.	Income Participation Mortgages	N/A	$ 184 mil.
$1,279 mil.	$3,899 mil.	Mortgage Securities	$ 203 mil.	$ 430 mil.
$ 56 mil.	$ 66 mil.	Construction Loans	$ 35 mil.	$ 330 mil.
$3,137 mil.	$8,606 mil.		$1,090 mil.	$1,950 mil.

Pension funds will continue to supply a substantial amount of capital to the real estate market but certainly not as much as the real estate industry hopes.

A recurring theme in conversations with fund managers is that with today's mortgage instruments, there is no premium paid for risk. Corporate bonds and guaranteed investment contracts offer nearly the same returns to the fund sponsor as do mortgages.

Pension funds are unwilling to assume the higher risks of real estate financing without a significant increase in return. Some real estate professionals have already learned this and have started packaging very attractive participating mortgages for pension funds. For example, one fund negotiated a mortgage that will return to it 50 percent of the increase in the building's equity above the construction cost, 50 percent of the net cash flow, and a 13 percent fixed interest rate on the permanent financing it will provide *after* the building is 75 percent leased.

It is the challenge of the real estate industry to understand pension fund investment requirements and to continue to develop better products that control the administrative and legal costs of financing and share more of the potential investment return with the pension funds.

The future. The prospect for future pension fund investments in real estate is excellent. Total pension assets are growing at a rate of 15 to 20 percent annually, and by 1995 they will total some $5 trillion. Today's pension fund investment officers were asked how they think those assets will be invested 13 years from now. They believe that 16 percent, or $800 billion, will be invested in real estate — mortgages, equity, or commingled funds.

Projected Estimates for 1995

1981 Survey $ in Billions	1981 Survey Percent		1982 Survey $ in Billions	1982 Survey Percent
N/A	N/A	Cash	$ 450	9%
$2,450	49%	Equities	$2,250	45%
$1,150	23%	Fixed Income	$1,100	22%
$ 250	5%	Mortgages	$ 200	4%
$ 300	6%	Real Estate Equity	$ 300	6%
$ 300	6%	Real Estate Commingled Funds	$ 300	6%
$ 300	6%	International Investments	$ 250	5%
$ 100	2%	Venture Capital	$ 100	2%
$ 50	1%	Collectables and Precious Metals	—	—
$ 100	2%	Other	$ 50	1%
$5,000	100%		$5,000	100%

The actual results of our 1982 real estate survey are presented in the following tables.

Do you regard real estate equity investments as an effective inflation hedge?

	1975	1976	1977	1980	1981	1982
Yes	80%	62%	67%	86%	83%	83%
No	15%	36%	29%	8%	11%	13%
Did not answer	5%	2%	4%	6%	6%	4%

Do you regard real estate equity investments as being capable of contributing consistency to your fund's performance?

	1975	1976	1977	1980	1981	1982
Yes	71%	59%	59%	77%	83%	79%
No	23%	39%	37%	18%	10%	17%
Did not answer	6%	2%	4%	5%	7%	4%

What would you regard as the minimum acceptable net cash yield to the fund from real estate equity investments?

	1975	1976	1977	1980	1981	1982
Specified a minimum of 7%	5%	17%	21%	11%	18%	9%
Specified a minimum of 8%	20%	15%	18%	13%	20%	20%
Specified a minimum of 9%	22%	15%	17%	14%	11%	10%
Specified a minimum of 10%	17%	21%	17%	17%	19%	20%
Specified a minimum in excess of 10%	13%	13%	9%	21%	26%	28%
Did not answer	23%	19%	18%	24%	6%	13%

What would be your minimum expectation for annual appreciation from real estate equity investments?

	1975	1976	1977	1980	1981	1982
Identified 2% appreciation as the minimum acceptable rate	23%	12%	9%	3%	1%	1%
Identified 3% appreciation as the minimum acceptable rate	26%	18%	12%	4%	5%	7%
Identified 4% appreciation as the minimum acceptable rate	16%	9%	6%	6%	8%	11%
Identified 4+ % appreciation as the minimum acceptable rate	17%	37%	48%	66%	70%	73%
Identified 6+ % appreciation as the minimum acceptable rate	—	—	—	—	46%	46%
Identified 8+ % appreciation as the minimum acceptable rate	—	—	—	—	32%	30%
Did not answer	14%	23%	21%	21%	14%	19%

A recent change in the tax laws allows pension funds to purchase mortgaged income-producing property and to mortgage property themselves without incurring an unrelated business tax. Will this fact increase the likelihood of your fund's purchase of real estate?

	1981	1982
Yes	18%	11%
No	74%	81%
Did not answer	8%	8%

Has your fund purchased real estate equity by participating in any of the following vehicles?

	1981	1982
Direct purchase	8%	11%
Limited partnership	4%	3%
General partnership	1%	5%
Corporations	2%	1%

Has your fund participated in direct real estate investment utilizing the management expertise of an outside real estate counselor?

	1981	1982
Yes	9%	8%
No	83%	84%
Did not answer	8%	8%

If yes, with what type of an organization?

	1981	1982
Insurance Company	26%	14%
Bank	26%	24%
Investment Banker	10%	10%
Developer	5%	14%
Independent Real Estate Management Firm	26%	48%
Broker or Realtor	21%	—
Other	—	10%

What do you regard as an acceptable management fee for your fund's participation in direct real estate investment utilizing an outside real estate investment counsel?

	1981[1]	1982[2]
½ of 1% annually of real estate under management	—	44%
¾ of 1% annually of real estate under management	36%	39%
1% annually of real estate under management	39%	11%
1¼% annually of real estate under management	18%	6%
1½% annually of real estate under management	—	—
2% annually of real estate under management	7%	—

[1] Based on 19 responses. *[2] Based on 18 responses.*

How do you value the real estate in your portfolio?

	1981[3]	1982[4]
At cost	30%	26%
By replacement cost	7%	13%
By income-appraisal — capitalizing the value of the income flow	41%	26%
Comparable property sale	7%	22%
All of the above	15%	13%

[3] Based on 27 responses. *[4] Based on 38 responses.*

What do you regard as an acceptable management fee for your fund's participation in institutionally sponsored pool-type real estate vehicles?

	1981[5]	1982[6]
½ of 1% annually of real estate under management	—	19%
¾ of 1% annually of real estate under management	25%	22%
1% annually of real estate under management	59%	45%
1¼% annually of real estate under management	15%	13%
1½% annually of real estate under management	1%	1%

[5] Based on 72 responses. *[6] Based on 90 responses.*

Does your fund intend to purchase new real estate investments during the next three years?

	1981		1982	
	Number	Percent	Number	Percent
Yes — Direct Ownership	38	18%	50	19%
Yes — Commingled	89	43%	110	43%
No — Direct Ownership	167	82%	208	81%
No — Commingled	116	57%	148	57%

The direct ownership of real estate equities is distributed among property types as follows:

	Current Ownership[7]		Planned — Next 3 Years[8]		
Type	Amount (in mil.)	Percent	Amt. Purchased (in mil.)	Amt. Developed (in mil.)	Percent
Office Buildings	$ 606	36%	$1,579	$ 430	43.0%
Hotels	5	—	173	20	4.5%
Apartments	40	2%	266	21	6.5%
Industrial	140	8%	675	74	17.0%
Small Shopping Centers	92	6%	248	—	5.0%
Medium Shopping Centers	95	6%	346	29	8.5%
Large Shopping Centers	101	6%	279	40	6.5%
Warehouses	69	4%	180	127	7.0%
Agriculture Land	23	1%	10	1	—
Not Specified	529	31%	106	—	2.0%
Current Total:	$1,700		$3,862	$ 742	
			Total Additional:	$4,604	

[7] *Response Group composed of: 26 corporation funds owning $526 million in real estate; 9 government funds owning $1,174 million in real estate.*

[8] *Response Group composed of: 39 corporation funds planning new real estate purchases of $1,446 million; 11 government funds planning new real estate purchases of $3,158 million.*

Commingled ownership of real estate is distributed among different type fund sponsors as follows:

	Current Ownership[9]		Planned — Next 3 Years[10]	
Fund Sponsor	Amount (in mil.)	Percent	Amount (in mil.)	Percent
Bank Commingled	$ 440	16%	$ 392	21%
Insurance Commingled	1,856	68%	703	38%
Other Common Trust Funds	445	16%	760	41%
Current Total:	$2,741	Total Additional:	$1,855	

[9] *Response Group composed of: 98 corporation funds owning $2,552 million in commingled; 5 government funds owning $189 million in commingled.*

[10] *Response Group composed of: 96 corporation funds planning new commingled purchases of $1,229 million; 14 government funds planning new commingled purchases of $626 million.*

Has your fund participated in real estate development?

	1982
Yes	4%
No	90%
Did not answer	6%

If yes, did your fund develop the property alone or with other organizations?[11]

	1982
Alone	22%
With Others	78%

[11] *Based on 9 responses*

If with others, please indicate the types of organization.[12]

	1982
Insurance Company	14%
Developer	43%
Independent real estate management firm	29%
Other pension funds	43%

[12] *Based on 9 responses*

Of the 50 funds intending new direct real estate purchases, 17 funds plan to *develop* $742 million worth of property. We asked the 17 funds that were planning property development if they would act alone or with others.

	1982
Alone	12%
With others	88%

Those planning to develop property with others indicated their partners as follows:

1982	
40%	Insurance Company
13%	Bank
—	Investment Banker
33%	Developer
33%	Independent Real Estate Management Firm
—	Broker or Realtor
40%	Pension Funds

Which of the following investments do you classify as real estate?

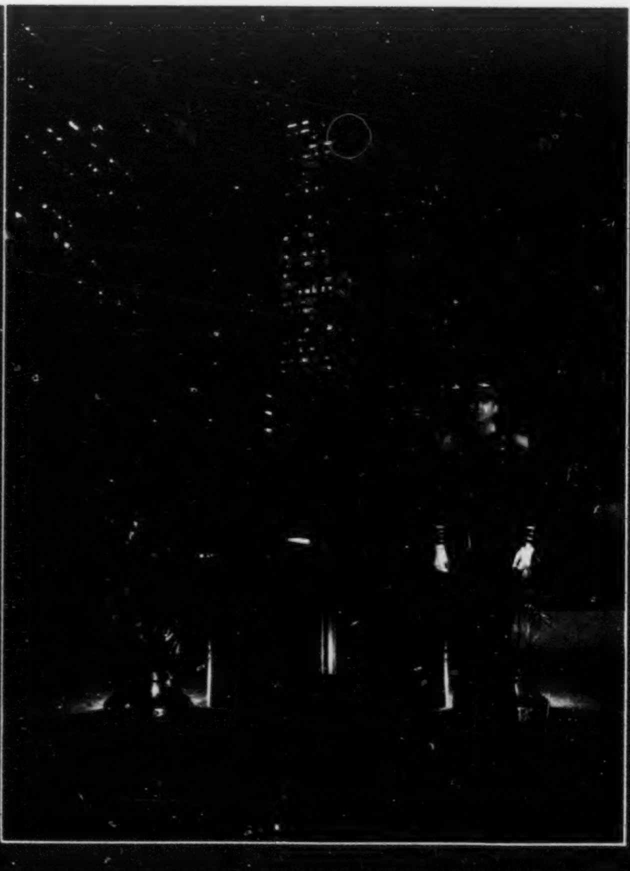
	1981	1982
Classified *Mortgages* as real estate	23%	33%
Classified *Equity Participation Mortgages* as real estate	67%	69%
Classified *Income Participation Mortgages* as real estate	N/A	48%
Classified *Mortgage Securities* as real estate	26%	22%
Classified *Construction Loans* as real estate	23%	23%
Classified *None* as real estate	16%	18%

Two relatively new concepts in mortgage financing for home ownership are the Variable Rate Mortgage and the Shared Appreciation Mortgage (SAM). Assuming you were able to purchase either in a pooled package, which would you prefer?

	1981	1982
Preferred a SAM	54%	41%
Preferred a Variable Rate	28%	30%
Did not answer	18%	20%

Would you choose either of them over a conventional pooled mortgage package?

	1981	1982
Yes	52%	32%
No	23%	36%
Did not answer	25%	32%



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Agricultural Real Estate

Cash crop for pension funds?

The agricultural segment of the U.S. economy has proven to be a good investment. Should U.S. pension funds begin to pay closer attention to farmland?

Total farm assets on January 1, 1982, were estimated to have reached $1.77 trillion. Of this, $895 billion represented privately owned (nongovernment) farm and ranch real estate. In sharp contrast to the United Kingdom (where the typical pension fund has 5 to 10 percent of its assets in English farmland), this substantial segment of the U.S. economy has received little attention from U.S. pension funds.

The failure to seek out means for investing pension funds into U.S. agricultural properties is even more surprising when the returns to farmland owners over the past 15 years are examined.

According to a U.S. Department of Agriculture (USDA) study (Figure I), the rates of return received as current income are similar for stocks, bonds, and farm assets, with common stocks showing the lowest return and farm assets the most variation. Figure II shows how farmland investment would have performed compared to the Dow Jones common stock index. In terms of capital appreciation, farm assets provided the greatest increase and the most stable rate of gain. In combined return, farm assets have produced the best results with the least volatility. While the validity of these comparisons is often challenged, the findings of this study have been confirmed by various other private studies.

For example, data compiled by the University of Illinois from the records of 495 central Illinois grain farms show that, in 1981, the operators of the top third had an average net income of $39,063 while the lowest third had an average net income of $3,212. The USDA study also has been criticized on the grounds that it is inappropriate to combine appreciation on an illiquid asset (real estate) with current income in an analysis of the returns. This concern is alleviated when the comparison is made with real capital gains (gains adjusted for inflation). These are real increases in asset values and are a real return, as is current income.

Farmland prices consistently exceeded the rate of inflation for many years prior to 1980. This is not surprising considering the steadily improving productivity of U.S. agriculture (see Figure III). As new technology, equipment, and skilled labor have been applied, returns have increased with a portion accruing to the land and being capitalized into higher land values.

by **WILLIAM B. SAYRE**
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Chicago, Ill.

Available agricultural land

Another major factor contributing to increasing farmland values has been greater demand domestically and abroad for agricultural products produced from a fixed land base and a constant or diminishing supply of water for irrigation. While some additional water is being made available for irrigation each year, a net decrease must be anticipated due to declining acquifers, increasing energy costs for pumping, and transfer of present water supplies to urban uses.

The USDA has established seven broad classifications of soils in the United States. These are classified on the productive capability and the limitations in the use of the soils and the need for special practices to overcome these limitations. The limiting factors may be such things as the risk from erosion, drought, flood or low fertility, alkali conditions, or physical limitations on the use of the soil for a particular type of production.

Class I soils have few limitations that restrict their use. These are the fertile soils that are adaptable to the production of many crops and are all tillable land. Class II soils have some limitations that reduce the choice of crops that may be

Figure I Rates of Return to Stocks, Bonds, and Farm Assets, Selected Periods (1950-79)

	Current Income			Real Capital Gains			Total		
Period	Common Stock	Long-Term Bonds	Farm Assets	Common Stock	Long-Term Bonds	Farm Assets	Common Stock	Long-Term Bonds	Farm Assets
1950-54	5.85	2.61	4.95	11.95	−1.69	3.28	17.53	0.92	8.23
1955-59	3.94	3.38	3.18	13.12	4.65	4.02	17.06	−1.27	7.19
1960-64	3.20	4.00	3.61	7.45	1.49	2.42	10.65	2.61	6.02
1965-69	3.18	5.01	4.46	1.61	−9.09	2.48	4.79	−4.08	6.94
1970-74	3.47	6.25	6.26	−8.66	−8.65	6.15	−5.19	−2.40	12.41
1975-79	4.68	7.49	4.50	−4.09	−12.06	5.10	0.59	−4.57	9.60

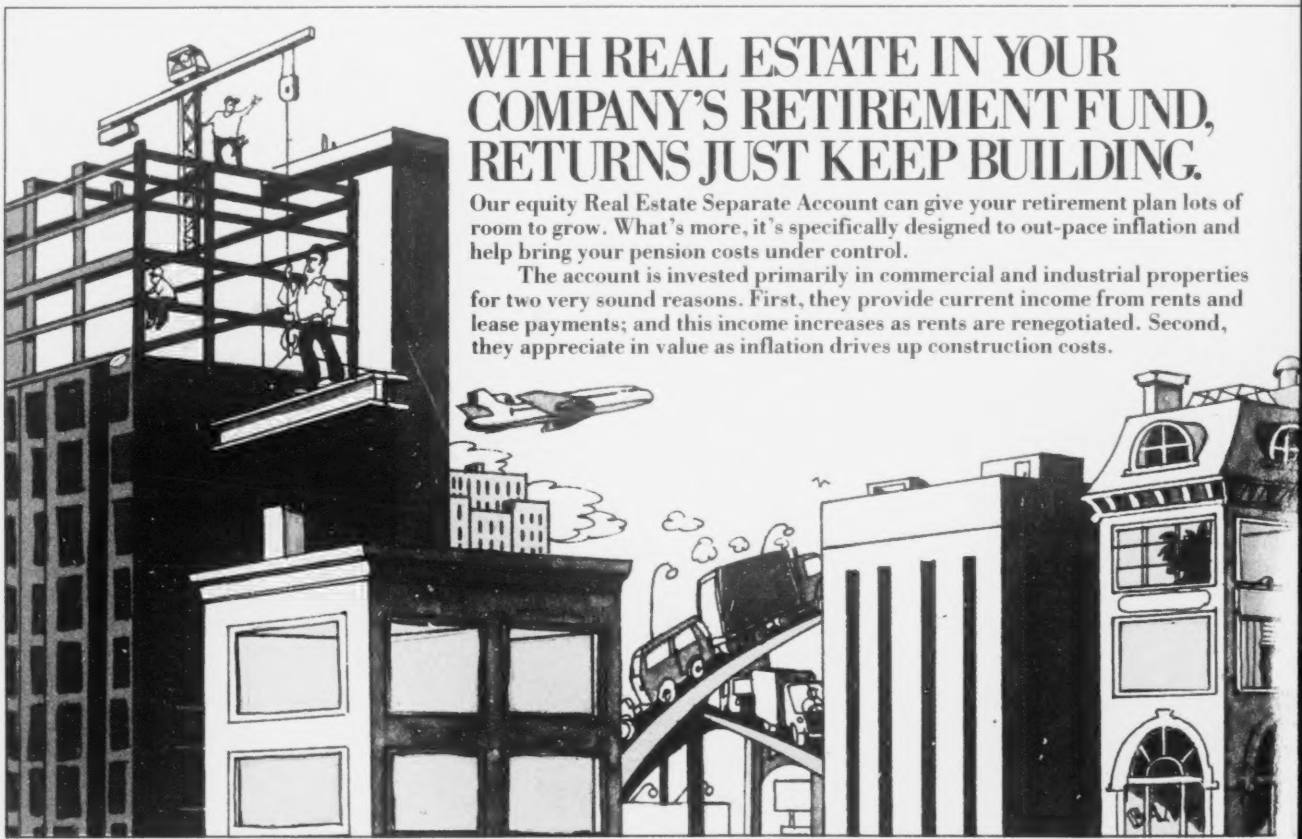
Source: ESS/USDA.

planted or that require specific conservation practices. Class III soils have severe limitations for the production of cultivated crops and must be given special treatment in order to protect the soil from erosion. Class IV soils have very severe limitations and limited options in regard to crop production. The Classes V, VI, and VII are not suitable for crop production and, depending on the topography and natural rainfall, may only be used for pasture, woodland, or wildlife.

The total amount of arable land in the U.S., as identified by the 1977 National Resource Inventory, is approximately 360 million acres. While an additional 100 million acres could be placed in production, it is presently marginal under the current relationship between production costs and commodity prices. If demand for agricultural commodities increases to a point that justifies bringing this marginal land into production, that land that has the natural economic advantage will become increasingly profitable and will reward its owners with higher net current income and real capital gains.

The question, then, is what type and quality of farmland should be considered for a pension fund asset? Class I farmland is strongly recommended, because to receive the USDA classification, a soil must meet standards of quality, productivity, fertility, permeability, drainage, slope, and other factors.

To put it more simply, Class I farmland is analogous to a AAA-bond or AA-bond rating. Primary reasons for selecting Class I land are low risk, strong demand for leasing, and increasing demand for agricultural products, which causes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land with the greatest economic advantage to show the greatest increase in income and real capital gain.

Consideration also should be given to acquiring land with few buildings, other depreciable improvements, or permanent crops such as trees or vines. A qualified retirement plan that meets the requirements of Code section 401(a) defers the employee's tax liability on income received by the trust until distributions are made. Therefore, the tax savings to current taxpayers are lost when the asset is owned by an employee benefit plan fund. However, a long-term leasing arrangement may be entered into that will enable the lessee to own the depreciable assets.

A second reason for avoiding property with depreciable assets is that taxpayers seeking tax shelters in the market are bidding up the price on properties where tax benefits can be realized. This is particularly true under the new Accelerated Cost Recovery System rules.

A third and very compelling consideration when dealing with depreciable assets such as center pivot ir-

Figure II Farmland vs. Stocks as an Investment
Index of Prices
(1964 = 100)

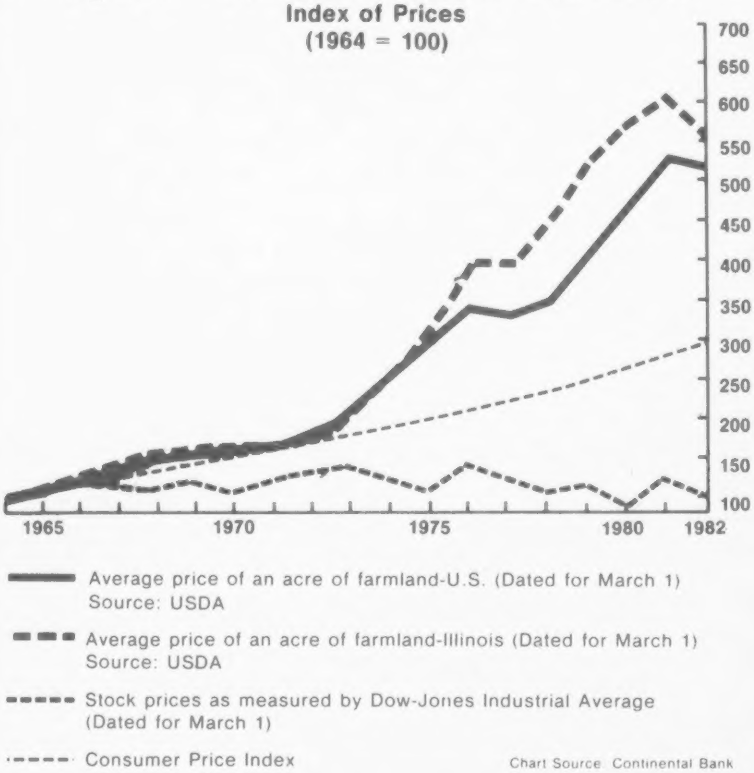

Chart Source: Continental Bank

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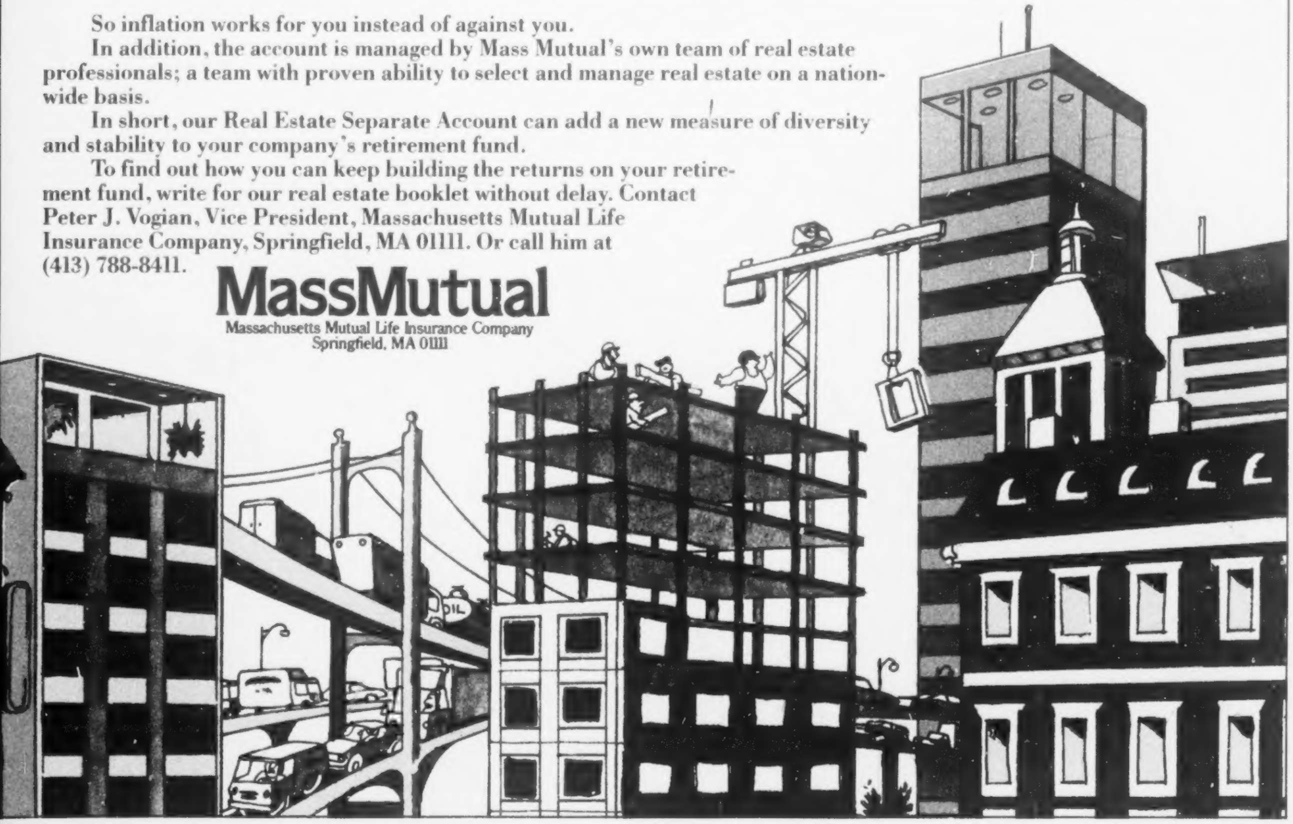

Figure III
Average Annual Productivity Growth in Agriculture (1950-79)

Period	Land	Labor
1950-59	2.32%	7.35%
1960-69	1.91	6.92
1970-79	2.50	7.22

Source: USDA.

rigation systems, grain handling equipment, confinement livestock feeding facilities, and other similar items is that the depreciation is real. These assets must be replaced at some future date with the result that a portion of the equity invested in this manner vanishes. This offsets the appreciation that is accruing to the land.

Evaluating the investment

Recognizing the wide variation in returns that may be obtained even from high quality land, guidelines are needed for evaluating the potential investment. The data required and the analysis of Class I farmland is simple and straightforward. The analysis of Classes II, III, and IV lands and development projects can become quite complex. The critical concern is that the data be obtained from competent and credible sources.

Skilled and experienced advisors and rural appraisers can analyze a farm property in detail. Such an analysis should include an inventory of resources, soil and water data, crop history, market analysis, income projections, and other pertinent information. This should be supported by USDA data, U.S. geological surveys, and extensive site research. In selecting an agricultural advisor, a pension fund trustee can demand the same high standard of performance as would be expected of a manager for a stock or bond portfolio.

Past performance and peer recognition are indicators for selecting an advisor or manager for a farmland portfolio. The American Society of Farm Managers and Rural Appraisers is the professional organization in the U.S. for this type of specialist. This organization awards the titles of Accredited Farm Manager and Accredited Rural Appraiser. These designations go only to those individuals who meet rigid standards of training and experience, pass comprehensive examinations, and comply with high ethical standards.

In making a farmland investment, a major determinant in selecting the best approach for a specific employee benefit plan will be the amount to be invested. A minimum of 10 percent of the fund's assets should be targeted for real estate, if the investment is to have an impact on the overall performance of the fund. If this targeted amount is $5 million or more, investing directly in farmland property is recommended. Among the advantages of direct investment are direct control over the purchase, management and eventual sale of the property, elimination of the evaluation problems related to monies being added or withdrawn from the pool by other investors, and an increased ability to diversify the total portfolio and thereby to control the risk more effectively.

Diversification can be readily achieved with a $5 million investment in farmland. Diversification of the farmland portfolio might include a mix of Cornbelt, California

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(or Rio Grande Valley), and the Mississippi Delta areas, which gives a combination of different climates, crops, markets, and labor supplies. It is important to remember that farmland prices are a function of net profits per acre; therefore, the ability to produce increasing net rental income over time is important not only to cash flow, but to future appreciation as well. Being positioned where rents are determined by world market crops (e.g., corn, soybeans, rice) as well as by domestic market crops such as fresh vegetables, citrus, and grapes provides an ideal blend.

Grape producers and many vegetable growers had their best years in 1981, and low feed grain prices are combining with a surge in hog and cattle prices to return these to profitable levels. The U.S. enjoys a strong competitive advantage in world food production due to high rates of productivity that result from the combination of climate, soils, technology, equipment, management, and a skilled labor force.

Generally, if the funds targeted for farmland by the plan sponsor are less than $5 million, the the advantages of such diversification can best be obtained by some pooling method.

Farm owners now are welcoming cash buyers as a way to bring needed capital back into agriculture. Faced with high interest rates for operating loans, many farm owners are monetizing their positions by selling some of their farmland on a sale/leaseback arrangement. When leasing the land back long term, the farmer is able to raise cash, which reduces interest expenses and allows him to retain control of the land. This practice is commonly used by businesses outside of agriculture.

Current and future outlook

Recognizing that farmland is a segment of the economy where excellent opportunities have been largely overlooked in recent years, the questions, "What is happening now?" and "What does the future hold?" must be asked. The agricultural sector of the economy is suffering in the current recession, as are most other sectors. Bumper crops were produced in 1980 and 1981. The Carter embargo and Reagan's sanctions on grain exports to Russia and Eastern Europe, along with the strengthened dollar and import restrictions in the Common Market and Japan, have all combined to back up the export pipeline. The resulting price drop in major commodities (corn, soybeans, cotton, wheat, and rice) has been reflected in lower land prices. The USDA reports that for the 14-month period ending April 1, 1982, farmland prices declined 1 percent nationally. This was the first decline since 1953. This is not a bad record, particularly in the context of what is occurring in the balance of the U.S. and world economies.

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The outlook is encouraging for agriculture. Grape producers and many fresh vegetable growers had their best years in 1981. Low feed grain prices are combining with a surge in hog and cattle prices to return these livestock enterprises to profitable levels. The U.S. enjoys a strong competitive advantage in world food production due to high rates of productivity. This is the result of the combination of climate, soils, technology, equipment, management, and a highly skilled labor force.

Foreign demand for U.S. agricultural products will continue to be a dominant factor in the 1980's. Presently the production from one out of every 3.5 acres and 28 percent of all marketings goes into foreign trade. This trade has been expanding at a rate of 2.8 percent annually for the past three decades. Worldwide per capita income has been expanding at 3 percent per year, resulting in a 1 percent annual rise in demand for food. The high-growth developing countries of the world, with a combined population of 600 million people, will be increasing the quantity and quality of their food demands during the 1980's.

Given the world demand/supply situation, America's Class I farmland appears to be one of the outstanding, non-depletable natural resources in the world. The present downtick in U.S. farmland prices may offer the best "buying window" that will occur for years to come. No one can predict how long this opportunity will exist or how dramatic the ensuing turnaround may be.

The USDA, in its review of prospects for the 1980's (ESS-AFPR-4), summarizes: "The 80's will be a decade of serious global adjustments—to record or near record growth in demand, to slower growth in production, and to increased dependence on the United States as a source of supply."

Given this world demand/supply situation, America's Class I farmland stands out as one of the outstanding, non-depletable natural resources in the world. The present downtick in U.S. farmland prices may offer the best "buying window" that will occur for years to come. No one can predict how long this opportunity will exist or how dramatic the ensuing turnaround may be.

One fact is certain—the world supply of food rests in a fragile balance. The persistent farm surpluses of the 50's and 60's vanished within a few months with the "grain drain" of 1972. Because of America's position as the major supplier of food in the international market, farmland in the U.S. is recognized as one of the most secure investments in the world. ☐

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PW 9/82

5th Annual Real Estate Portfolio Manager Directory

■ The following *Pension World* Real Estate Portfolio Manager Directory lists firms that provide real estate portfolio management services for pension funds. It is not an exhaustive list, but rather identifies the firms that responded in full to *Pension World*'s questionnaire. Only those firms indicating they currently manage real estate portfolios for pension funds are included.

During June, 1982, the questionnaire was mailed to 525 firms throughout the U.S. and Canada that provide some form of real estate services. The response rate was 19.4 percent, with 86 of those firms — including 62 from last year's Directory — meeting the criteria.

The number of firms offering real estate portfolio management to pension fund managers still appears to be growing, though at a slower pace than in recent years. Using the same criteria as last year, the 1982 Directory increased in size by 11 percent, compared to a 24 percent jump from 1980 to 1981. Similarly, less than half a dozen firms responded this year that they are in the process of instituting new funds or expanding their services to include pension fund clients, compared to 14 firms last year.

The gap is widening between the firm with the smallest amount of pension fund assets under management and the firm with the largest. The number of pension fund clients under real estate portfolio management by any one firm ranges from 1 to 7,000. The smallest portfolio of pension fund real estate assets is $1.5 million; the largest is $16 billion. Seven firms are managing more than $1 billion in pension funds assets, compared to four in the 1982 Directory.

Name and address	Person to contact, phone	Total assets under real estate portfolio management (millions)	Number of pension fund real estate clients	Total pension fund real estate assets under portfolio management (millions)
ACKERMAN ADVISORY ASSOCIATES 3340 Peachtree Road, NE, Suite 111 Atlanta, GA 30026	Brian Bash President 404/262-7171	$280	6	$280
ACQUEST CAPITAL MANAGEMENT CO. 555 South Woodward Avenue, Suite 606 Birmingham, MI 48011	James Collins Chairman 313/645-5130	Approx. $25	15	Approx. $25
AETNA LIFE & CASUALTY CO. 151 Farmington Avenue Hartford, CT 06156	James W. Tilney Assistant Vice President 203/273-6951	$1,050	151	$1,050
ALDRICH, EASTMAN & WALTCH 234 Congress Street Boston, MA 02110	Rosalie E. Gross Associate 617/542-9300	$76.4[1] (6/1/82)	6[1]	$68[1] (6/1/82)
ALSTER INTERNATIONAL 919 Third Avenue New York, NY 10022	Bruce Ginsberg Vice President/Acquisitions 212/888-7966	$150	3	$150
AMERICAN PRINCIPALS FINANCIAL CORP. 2262 Carmel Valley Road Del Mar, CA 92014	Robert J. Metcalf Senior Vice President/ Institutional Services 714/481-3131	$46.1	141	$5.1
AMERICAN SUNBELT PROPERTIES 501 Park Avenue North Winter Park, FL 32790	Donald Culler President 305/629-1085	$50	3	$6
AMINOFF & CO. 9601 Wilshire Boulevard #220 Beverly Hills, CA 90210	Gary A. Aminoff President 213/858-6700	$125	3	$30
THE BALCOR CO. 10024 Skokie Boulevard Skokie, IL 60077	Donald L. Fortunato Vice Chairman 312/677-2900	$1,500+	Approx. 7,000	Approx. $135
BANK OF AMERICA P.O. Box 37026 San Francisco, CA 94137	Richard Clark Vice President 415/622-3103	$251.3	216	$91.5
BANKERS LIFE CO. 711 High Street Des Moines, IA 50307	Ronald E. Keller Vice President/Pension Investment Services 515/247-5192	$12 (separate account), $475 (general account)	2 in separate account	$12
THE BOSTON CO. REAL ESTATE COUNSEL One Boston Place Boston, MA 02106	Robert A. Radloff President 617/722-7102	$240	2	$200
R. M. BRADLEY & CO. 250 Boylston Street Boston, MA 02116	Richard P. Brown Senior Vice President 617/421-0714	$550	2	$250

[1] Exclusive of closed-end fund for pension funds offered through State Street Bank.

Breakdown of assets into real estate holdings	Participation offered	Geographical diversification	Minimum investment	Return on investment (net of fee)	Fee
Income-producing property — $263 million; mortgages — $17 million	Units in commingled closed-end fund; separate account	National	$2 million for separate account	11-15%	Varies according to client and fund
100% non-leveraged equity interests in high technology, R&D, light industrial facilities	Limited partnership interests	Primarily Michigan	$250,000	Not available	½-1.2% of invested assets per annum
Income-producing property — 80.8%; convertible or participating mortgages — 19.2%	Units in open- and closed-end equity real estate and open-end participating mortgage accounts	Equity real estate — national; participating mortgage — all regions except mountain states	$100,000	Equity real estate — 13.3%; participating mortgage — 23.1% (12 months ending 3/31/82)	Investment management: equity real estate — 1.0%; participating mortgage — .75%
Commercial income-producing (office, retail, industrial)	Combination of debt/equity through direct accounts or closed-end funds	National	$5 million per year (direct account)	Not available	Portfolio management — averages .125% of net equity; transaction fees extra
Income-producing property, mortgages	Equity ownership	Sunbelt, plus Denver, Washington, DC, Chicago, New York City	$10 million	Approx. 16%	Negotiated from ½ of 1%-2%, depending on program
Mortgages, income-producing property	10-70% equity participation	California — 80%; Sunbelt — 20%	Equity — $10,000; debt — $25,000	12-25% on gross dollars invested	4-12% plus back-end participation of 30%
100% income-producing property	Equity participation	Southwest	$60,000	20%+	Negotiable
100% income-producing property	Limited partnership, direct investment, joint venture, commingled participation	National	$100,000	8-14%	Negotiated
100% equity participation mortgages (first and wraparound)	Limited partnership, group trust, direct advisory services	National	Limited partnership — $2,000; group trust — $1 million	17-19% internal rate of return	Limited partnership — share in cash flow; group trust or direct advisory — asset management fee
Income-producing property — $6.1 million; mortgages — $5.4 million	Separate accounts, commingled funds	West — 66%; South — 31%; East — 3%	$50,000	13.38% (12 months ending 3/31/82)	1¼% of net assets
Ownership in existing properties	Not available	National	$5,000	Not available (account commenced 1/1/82)	Real estate account fees — 0.08% per month; additional contract expenses for assets under management
Debt instruments with equity features in income-producing property	Direct investment	National	$5 million initially; $10 million per year thereafter	Not available	Fee schedule available
100% income-producing property, both equity and debt	Participating and convertible mortgages, land sale, leasehold mortgage, joint ventures, 100% equity w/or w/out debt	Continental U.S.	$5 million	Varies	Asset management fees charged to accounts

Name and address	Person to contact, phone	Total assets under real estate portfolio management (millions)	Number of pension fund real estate clients	Total pension fund real estate assets under portfolio management (millions)
CAPITAL CONSULTANTS 2300 S.W. First Portland, OR 97201	David Nelsen Vice President James Crumpacker Assistant Vice President 213/932-4567	$111	33	$111
CITIBANK, N.A. 153 East 53rd Street New York, NY 10043	W. Herbert Crowder, III Vice President/Real Estate Investments and Management 212/559-9332	$3,346	34	$1,800
COLDWELL BANKER CAPITAL MANAGEMENT SERVICES 533 Fremont Avenue Los Angeles, CA 90071	Reid G. Samuelson First Vice President & Division Manager 213/613-3491	Approx. $600	35	Approx. $600
CONNECTICUT GENERAL LIFE INSURANCE CO., A CIGNA Corp. Company Hartford, CT 06152	Stephen Cordes Pension Investment Officer 203/726-8506	$1,100 (4/1/82)	25 (4/1/82)	$44 in RESA (4/1/82)
CONNECTICUT MUTUAL LIFE INSURANCE CO. 140 Garden Street Hartford, CT 06115	Norman Hausmann Director/Group Pension Sales 203/727-6607	$500	8	$25
CONSOLIDATED CAPITAL INSTITUTIONAL ADVISORS 1900 Powell Street Emeryville, CA 94608	Richard G. Wollack President Philip V. Maller Senior Vice President 415/652-7171	$1,500	500	Approx. $75
CORPORATE PROPERTY INVESTORS 230 Park Avenue New York, NY 10169	Hans C. Mautner President 212/725-215[illegible]	$2,000	25	Approx. $1,500
CROCKER REAL ESTATE INVESTMENT GROUP 44 Montgomery Street, Suite 2110 San Francisco, CA 94104	John H. Dracott Vice President 415/477-7162	$145 (5/31/82)	221	$120
DIVERSIFIED HOLDINGS CORP. 475 Park Avenue South New York, NY 10016	Peter B. Daenzer President 212/684-7979	$700+	20	$10
RICHARD ELLIS 200 East Randolph Drive, Suite 6545 Chicago, IL 60601	Donald H. Bidel President 312/861-1105	$627	3	$559
EQUITABLE LIFE ASSURANCE SOCIETY OF THE U.S. 1285 Avenue of the Americas New York, NY 10019	Mary Ann Fullam Assistant Product Manager 212/554-8970	$16,000 (12/31/81)	263 in Separate Account No. 8 (SA 8) (12/31/81)	$16,000 (12/31/81)
EQUITEC FINANCIAL GROUP 3732 Mt. Diablo Boulevard, Suite 360 Lafayette, CA 94549	Ronald E. Silva Manager/Pension Sales 415/283-8900	$425	3	$4.75

Breakdown of assets into real estate holdings	Participation offered	Geographical diversification	Minimum investment	Return on investment (net of fee)	Fee
Income-producing property — 29%; mortgages — 71%	Units in open-end fund (hybrid); mortgages	National with emphasis on West Coast	$1 million	9½-10% cash-on-cash	Varies
Mortgages — $1,009 million; income-producing property — $791 million	Equity ownership, participating first mortgages, individually structured separate accounts	National	$5 million	14-18%	Fee schedule available upon request
100% income-producing property	Limited partnership	South — 75%; North — 25%	$1 million	13-27%, depending on fund	Management fee based on cost, with performance incentive fee
100% income-producing commercial property (garden-office, office-warehouse, industrial, retail)	Units in open-end pooled account (RESA); single-customer and limited customer closed-end accounts	National in smaller cities and outlying metro areas	$100,000 for initial and ongoing RESA deposits	10.74% annualized (6 mos. ending 3/31/82)	RESA — 1.0% annual management fee on net assets of RESA; contract expense charge based on total pension assets under CG management
100% income-producing property (office buildings, industrial, shopping centers)	Units in open-end commingled fund	Midwest, Southwest, West, Northwest	$100,000	15.7%	1% per year on net asset value of fund
Mortgages — 50%; income-producing property — 50%	Units in commingled funds; participating mortgage	Sunbelt	$5,000	Not available	Incentive fee — 25% of appreciation; acquisition fee — 6%
100% income-producing property	Shares in Corporate Property Investors when firm is seeking additional funds	National	$5 million	Not available	None
100% income-producing property	Units in open- and closed-end funds, separate accounts	National with emphasis on West and Southwest	No minimum in open-end fund	Equity fund — 11.89% annualized; equity real estate — 20.33% annualized; development — 34.06% annualized (all as of 12/31/81)	Open- and closed-end funds — 1.2%; separate account fee based on acquisition, disposition and ongoing management
Income-producing commercial property	Mortgage debt, equity	National	$100,000	Currently 20%+	Negotiated
Income-producing property — $464 million; forward commitment to acquire property under construction — $95 million	Direct, closed-end commingled fund	National	$10 million for closed-end fund	Not available	1% of fair market value of real estate investments
SA 8 — partial and full equity in real estate property, mortgages, construction loans	Units of participation in SA 8	South — 31%; Central — 21%; West — 18%; Mid-Atlantic — 10%; Northeast — 20%	No minimum for SA 8	SA 8 — 16.3% annualized (12/31/81)	SA 8: first $2 million — 1.10%; next $8 million — 1.05%; next $10 million — 1.01%; next $25 million — .71%; next $50 million — .41%
Income-producing commercial property (office, industrial, business park)	Commingled limited partnerships	National with emphasis on Sunbelt	$150,000	20% internal rate of return	Acquisition — 5% of purchase price; asset management — 1.5% per year on real estate assets; incentive fee

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Name and address	Person to contact, phone	Total assets under real estate portfolio management (millions)	Number of pension fund real estate clients	Total pension fund real estate assets under portfolio management (millions)
EQUITY CORP. 25th Floor, First American Center Nashville, TN 37238	Linda Gene Chesnut Vice President/Portfolio Management 615/242-4417	$100	14	$50
EQUITY PROGRAMS INVESTMENT CORP. 5201 Leesburg Avenue Falls Church, VA 22041	Joel H. Bernstein Vice President 703/931-7600	$300	10	$20
FIRST ASSET REALTY ADVISORS First Bank Place Minneapolis, MN 55480	Allen J. Anderson President 612/370-4173	$27	5	$17
FIRST FEDERAL SAVINGS 3003 North Central, Room 406 Phoenix, AZ 85012	Rick McGill Vice President 602/248-4580	$2,305	12	$150
FIRST NATIONAL BANK OF ATLANTA P.O. Box 4148 Atlanta, GA 30302	David S. Graham Vice President 404/588-5104	$58	19	$28
THE FIRST NATIONAL BANK OF BOSTON Box 1882 Boston, MA 02105	Peter F. Tague, III First Vice President 617/434-4560	$182 in pooled real estate funds	Approx. 300	$182
THE FIRST NATIONAL BANK OF CHICAGO Three First National Plaza, Suite 0106 Chicago, IL 60670	Larry G. Ginnegaw Vice President 312/732-4151	$718	101	$50[1] (5/31/82)
THE FIRST NATIONAL BANK OF FORT WORTH P.O. Box 2260 Fort Worth, TX 76113	Gerald Hartman, Jr. Vice President & Trust Officer 817/390-6996	$200	45	$50
FIRST WISCONSIN TRUST CO. 777 East Wisconsin Avenue Box 2054 Milwaukee, WI 53201	Earl D. Lillydahl Vice President 414/765-4844	$25	1	$1[2]
GAVEY & CO. 80 Park Avenue New York, NY 10016	James E. Gavey President 212/867-0130	$44	3	$1.5
GREAT-WEST LIFE ASSURANCE CO. 60 Osborne Street North Winnipeg, Manitoba R3C 3A5	Gary N. Coopland Director/Pension Investments 204/946-9342	$1,800	106	$178.5
GROUP ONE INVESTMENTS 77 West Washington Street, Suite 1005 Chicago, IL 60602	Robert H. Weitzman Finance Partner 312/644-2444	$100+	50	$20+
GRUBB & ELLIS CO. 1333 Broadway #900 Oakland, CA 94612	Terry P. Noyer Senior Vice President 415/839-9600	$103	3	$45

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[2] Additional commitment of $1.2 million not yet invested in property.

Breakdown of assets into real estate holdings	Participation offered	Geographical diversification	Minimum investment	Return on investment (net of fee)	Fee
Income-producing property — 90%; undeveloped land — 10%	Unrestricted	Southeast	$1 million	8-10%	Acquisition plus management fee; varies
100% income-producing property (builders model homes)	Limited partnerships	Primarily Sunbelt	$1 million	Past average 17% per annum	Acquisition fee at time of purchase; separate fees for property and portfolio management
100% income-producing property	Units in open- and closed-end funds	National	$1 million	13.2%	1.25% of net asset value
Not available	Generally, 90% interest in mortgage loan pools of residential or commercial loans	Arizona and California	$1 million	Market rate — usually 50 basis points over GNMA yields in cash market	Negotiated servicing fee
Timberland	Equity	Southeast (Virginia through East Texas)	$250,000	Inflation +	1.2% of value of timberland; .25% on cash equivalent portion
Income-producing property	Unit ownership in open-end pooled equity real estate fund	National	No minimum	15% (12 months ending 12/31/81)	1% per annum based on participating trust's share of market value of fund at period-end; $500 minimum annual charge
Fund F — income-producing property, pre-developed land, mortgages	Units of participation in Fund F; units in The First Apartment Fund	Metropolitan areas: Midwest — 29.2%, West — 35.7%, South — 26.7%, East — 8.4%	$1 million for The First Apartment Fund	15.9% (12 months ending 5/31/82)	Basic account charge of $1,500 plus 1.2% annual fee
Income-producing property — 70%; undeveloped land — 5%; mortgages — 25%	Individual ownership, pooled funds, joint ventures	National with emphasis on Texas	Varies by participation	Varies by manner of investment	Varies by participation; fee schedule available
100% free and clear nonresidential income-producing property	Units in commingled fund	Currently Wisconsin, Eastern Minnesota, Northern Illinois	$100,000	Approx. 14%	1½% on real estate assets; ¼% on liquid assets
100% income-producing residential multi-family apartments	Limited partnership interest	National	$25,000-$100,000	30% average (1981)	5-15% of cash distribution, including profits
Warehouse — 18.8%; office/warehouse — 15.6%; retail — 36.7%; office — 28.9%	Units in pooled fund	B.C. — 7.9%; Manitoba — 12.3%; Saskatchewan — 1.7%; Maritimes — 26.5%; Ontario — 19%; Alberta — 30.3%; Quebec — 2.3%	No minimum	14.03%	First $1.5 million — 54%; next $3.5 million — 36%; next $15.0 million — 24%; over $20 million — 18%
Income-producing property — 85%; ground leases — 5%; mortgages — 10%	Varies according to investor's need	National	$50,000	8-10%	Negotiated according to transaction structure
Equity ownership of commercial income-producing property — 33%; participating mortgage loans — 67%	Equity ownership	West, Southwest	$1 million	18%	Asset management — 1/12 of 1% per month based on book value; acquisition fee — 1%

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Name and address	Person to contact, phone	Total assets under real estate portfolio management (millions)	Number of pension fund real estate clients	Total pension fund real estate assets under portfolio management (millions)
JOHN HANCOCK MUTUAL LIFE INSURANCE CO. P.O. Box 111 Boston, MA 02122	Michael B. O'Toole Vice President 617/421-6168	$5,000	75	$642
INTEGRATED RESOURCES 666 Third Avenue New York, NY 10017	Joel M. Pashcow Executive Vice President 212/878-9200	$3,000+	Approx. 100	$30+
INTERFIRST BANK DALLAS, N.A. P.O. Box 83794 Dallas, TX 75283	Nathan O. Finke Vice President 214/744-8323 Ronald W. Landen Vice President 214/744-8567	$250	60	$250
THE INVESTMENT COUNSEL CO. 56 East Pine Street, #200 Orlando, FL 32801	Byron W. Giltz Vice President/Real Estate 305/841-6241	$50	10	$50
JMB INSTITUTIONAL REALTY 875 North Michigan Avenue, Suite 3900 Chicago, IL 60611	John S. Lillard President 312/440-5042	$180+	27	$180+
JONES LANG WOOTTON REALTY ADVISORS 499 Park Avenue New York, NY 10022	John A. [illegible] President 212/688-8181	$400	6	$400
THOMAS L. KARSTEN ASSOCIATES (Subsidiary of First Interstate Bancorp) 10960 Wilshire Boulevard Los Angeles, CA 90024	A. Redmond Doms, Jr. Executive Vice President John M. [illegible] Senior Vice President 213/473-1128	Direct — $110¹	Direct — 2¹	Direct — $110¹
THE KOLL CO. 4490 Von Karman Avenue Newport Beach, CA 92660	David P. [illegible] Executive Vice President 714/833-3030	$600	3	$60
LANDSING 800 El Camino Real Menlo Park, CA 94025	Ronald D. Roberts Vice President 415/321-7100 800/227-7334	$275+	Approx. 5,000	$125
LaSALLE PARTNERS 11 South LaSalle Street Chicago, IL 60603	Kenneth M. Campia President Stanislaw Maliszewski Vice President 312/782-5800	$1,200	Approx. 20	$350
LANDAUER ADVISORS 200 Park Avenue, Suite 3710 New York, NY 10166	Patrick J. Callan President 212/687-2323	Approx. $500	4	Approx. $500

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[1] Pooled fund offered 7/82 by Karsten Institutional Realty Advisors.

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Breakdown of assets into real estate holdings	Participation offered	Geographical diversification	Minimum investment	Return on investment (net of fee)	Fee
Equity Real Estate Account (ERA) — income-producing property	Units in open-end commingled fund	East — 22%, South — 30%, Midwest — 24%, West — 24%	$250,000	13.3% net	1% per year charged quarterly on net assets of previous quarter-end
Currently: mortgages — $17 million; short-term money instruments — $13 million	Common stock in Resources Pension Shares, Inc. (REIT), with dividend reinvestment plan	National	$1,000 in most states	Estimated 15.3% internal rate of return without dividend reinvestment	Offering, acquisition, operation, and liquidation fees; fee schedule available
Office buildings — 65%, warehouse — 12%, retail — 10%, ground leases — 3%, undeveloped land — 3%, mortgages — 7%	Units in open- and closed-end fund; separate accounts	Southwest	$25,000	13.82% for pooled fund (12 months ending 12/31/81)	1% of market value per annum
100% mortgages	Negotiable	Florida	$500,000	Negotiable	Negotiable
Income-producing property (neighborhood shopping centers, office buildings)	Equity participation	Florida, New York City, Tulsa, Sacramento	$150,000	Group Trust I — 17.3% annualized (8/80-12/81)	Property acquisition, asset management, sale, other services at 1¼% annually on all real estate assets at market value; property management maximum 5% of rents
100% income-producing property	Direct investment, separate accounts	National	$50 million	Varies	Varies according to services provided
Income-producing property, mortgages	Direct investment	National with emphasis on West	$1.5 million	Varies	Direct investment — negotiable
Income-producing office and industrial property	Joint venture	California, Arizona, Washington, Oregon	$5 million	20%+	50% participation in profits with guaranteed return to pension fund or incentive fee to Koll Co. with all return to pension fund
Income-producing property (garden apartments, shopping centers, office, industrial)	Units in closed-end equity trust, participating debt, fee ownership	West, Southwest	$5,000	15-20%	Negotiable
Income-producing property	Units in commingled fund	Major metro areas throughout U.S.	$5 million	Not available	1¼% of net real estate assets
Income-producing property (office buildings, shopping centers, industrial)	Equity ownership through direct investment or participation in closed-end group trust	National with emphasis on major metro areas	$5 million for closed-end group trust	Varies	Closed-end group trust — 1.25% annually of contributions during years 1-5; 1.0% annually of appraised net asset value years 6-10; direct — negotiated

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Name and address	Person to contact, phone	Total assets under real estate portfolio management (millions)	Number of pension fund real estate clients	Total pension fund real estate assets under portfolio management (millions)
LEHNDORFF U.S. EQUITIES 2501 Cedar Springs, Suite 340 Dallas, TX 75201	John D. Gourley President 214/658-0800	$1,500 (cost)	6	$200
LIEBERMAN COS. 554 Middle Neck Road Great Neck, NY 11023	Bruce R. Lieberman President 516/466-6565	$30	2	$2
LOEB PARTNERS REALTY 521 Fifth Avenue New York, NY 10175	Gary L. Naughton Vice President 212/883-0371	$500	4	$150
MARCIL TRUST CO. 55 Avenue Road, Suite 2900 Toronto, Ontario M5R 3L2	John Donald President 416/922-1831	$1,100	16	$415
MASSACHUSETTS MUTUAL LIFE INSURANCE CO. 1295 State Street Springfield, MA 01111	Peter J. Vogian Vice President 413/788-8411	$3,243	35	$26
JOHN McMAHAN ASSOCIATES 201 California Street San Francisco, CA 94111	John McMahan President 415/433-7770	$90+	3	$34
MERCANTILE TRUST CO. P.O. Box 387 St. Louis, MO 63166	Arthur C. Jones Vice President 314/425-2735	$31,000	3	$31.2
MERRILL LYNCH HUBBARD Two Broadway New York, NY 10004	James T. Foran Vice President 212/908-8440	$650	10	$550
METROPOLITAN LIFE INSURANCE CO. One Madison Avenue New York, NY 10010	Peter Braun Vice President/Group Pension Marketing and Sales 212/578-2937	$179.9 (3/31/82)	23	$179.9 (3/31/82)
MORGAN GUARANTY TRUST CO. OF NEW YORK Nine West 57th Street New York, NY 10019	Rohit M. Desai Senior Vice President Marian U. Pardo Vice President 212/826-7302	$1,100	250	$500
MUTUAL OF NEW YORK 1740 Broadway (14-1) New York, NY 10019	Phil Maisano Divisional Vice President/Pension Investment Marketing 212/708-2600	$2,800	20	$13
NEW YORK LIFE INSURANCE CO. 51 Madison Avenue New York, NY 10010	William D. Calligan Vice President 212/576-5743	$250	3	$25

Breakdown of assets into real estate holdings	Participation offered	Geographical diversification	Minimum investment	Return on investment (net of fee)	Fee
Income-producing property	Units in pooled funds direct investment	Sunbelt, West, Northeast	$1 million	20% total	1.25% of value of portfolio annually
Income-producing property, mortgages	Varies according to investor's needs	Southeast, Southwest	$500,000	Varies	Negotiable
Income-producing property — 90%, land — 10%	Direct investment	National	$1 million	Varies	Varies
Income-producing property — 54%, mortgages — 46%	Direct investment by single fund or in conjunction with other funds	Canada, Chicago	$5 million	20% + internal rate of return	Negotiable
Income-producing property	Units in open-end commingled fund	Northeast — 22%, Midwest — 13%, Southwest — 22%, Rocky Mountain — 16%, Southeast — 27%	$250,000	10.06% (6 months ending 3/31/82)	1% of market value on an annual basis
Income-producing commercial property	Units in pooled account; separate accounts; fee ownership; participating mortgage; convertible mortgage; joint ventures	National with emphasis on West and Southwest	Pooled account — $2 million; Separate account — $10 million	16% internal rate of return (investment target)	Pooled account: annual fee of 1.2% of assets managed; separate account: acquisition — 2-3% of purchase price; portfolio management — .5% of assets
Income-producing property — 58%, convertible mortgages — 42%	Units of participation	Texas — 72%, Florida — 10%, California — 8%, Missouri — 10%	$25,000	12.7% (12 months ending 3/1/82)	1% on net real estate assets plus .25% on short-term investments
Income-producing property — 50%, mortgages — 50%	Direct investment	Northeast — 16%, Southeast — 12%, Midwest — 23%, Northwest — 7%, Southwest — 16%, West Coast — 25%, Canada — 1%	Debt — $5 million; equity — $10 million	Varies	Varies
Income-producing property (office buildings, industrial, retail, hotel/motel), land	Units in open-end commingled and diversified funds and in closed-end separate account	National	Open-end funds — $100,000; closed-end fund — $2 million	Separate Account RE — 16.9% (1981); Tower Fund — 8.55% (unannualized for 11 months beginning at inception on 1/30/81)	Open-end funds: investment management fee — 1% per year of net asset value; closed end fund: 1.25% annual fee
Income-producing property	Units in open-end fund; separate accounts	National	$1 million initially for open-end fund	10.2% (time-weighted annual return for 12 months ending 3/31/82)	First $75 million — 1%, $75-$150 million — .8%, $151-$250 million — .6%; over $250 million — ½%
100% income-producing property (office buildings, shopping centers, warehouses)	Units in open-end commingled equity separate account	Sunbelt — 33%; Northeast — 25%; West — 20%; Midwest — 22%	$100,000	25.9% (since account inception on 5/14/81)	1% asset management fee plus up to .4% contract charge annually
100% income-producing property	Unit value in real estate separate account	Continental U.S.	$250,000	Not available	1% asset management fee

Name and address	Person to contact, phone	Total assets under real estate portfolio management (millions)	Number of pension fund real estate clients	Total pension fund real estate assets under portfolio management (millions)
NORTH AMERICAN LIFE ASSURANCE CO. 105 Adelaide Street West Toronto, Ontario M5H 1R1	Andrew Griffith Pension Executive 416/362-6011	$300	40	$35
NORTH CAROLINA NATIONAL BANK One NCNB Plaza Charlotte, NC 28255	Robert L. Reynolds Vice President 704/374-8379	$210	325	$210
PAINE WEBBER PROPERTIES 100 Federal Street Boston, MA 02101	George H. Bigelow Senior Vice President 617/423-8150	$100+	4,046	$70
PARAGON GROUP 7557 Rambler Road, Suite 1200 Dallas, TX 75231	Seabie W. Hickson, III Vice President 214/696-8000	$500+	1	$5
THE PECKHAM BOSTON CO. Four Longfellow Place, Suite 3305 Boston, MA 02114	John M. Peckham, III President 617/523-4440	$20+	4	$20+
PHOENIX MUTUAL LIFE INSURANCE CO. One American Row Hartford, CT 06115	Joel C. Cohan Vice President 203/278-1212	$1,058	6	$28
PROPERTY CAPITAL ADVISORS 200 Clarendon Street Boston, MA 02116	John A. Cervieri, Jr. President 617/536-8600	$400+	25+	$200+
THE PRUDENTIAL INSURANCE CO. OF AMERICA Prudential Plaza Newark, NJ 07107	Robert H. Dunphy Vice President 201/877-7884	$23,537 (3/31/82)	405 (3/31/82)	$4,933 (3/31/82)
PRUDENTIAL MORTGAGE BANKERS & INVESTMENT CORP. 2067 Mount Diablo Boulevard Walnut Creek, CA 94596	William Kleisath President 415/933-6846	$29	39	$25
REPUBLICBANK DALLAS P.O. Box 241 Dallas, TX 75221	David J. Pittman Vice President & Trust Officer 214/653-6506	$269	21	$51
ROSEN ASSOCIATES 333 Jericho Turnpike Jericho, NY 11432	Robert A. Rosen President 516/822-5350	$500+	7	$100
THE RREEF CORP. 650 California Street, Suite 1800 San Francisco, CA 94108	Paul Sack Principal 415/781-3300	$1,400	44	$1,400
SAVAGE/FOGARTY COS. 699 Prince Street Alexandria, VA 22314	Jeffrey H. Riddel Vice President 703/549-1160	Approx. $150	6	Approx. $75

Breakdown of assets into real estate holdings	Participation offered	Geographical diversification	Minimum investment	Return on investment (net of fee)	Fee
100% income-producing property	Units in pooled fund	North America	$50,000	13.6% (1981)	.78% annually as a surcharge
Income-producing property, undeveloped land	Units in NCNB real estate fund, individually structured accounts	Sunbelt with emphasis in Southeast	$100,000 for fund	16.5% (1981)	1.2% annually of market value
Income-producing property (shopping centers, apartments, industrial, hotel, office buildings)	Units in limited partnerships	National	$3 million-$9 million	15%+	10% of cash flow plus 15% of profits after investors receive 15% annual return
Office building	Limited partnership interest	Sunbelt	Varies according to project	Competitive market rate	Varies according to project, status of partner, type of real estate
100% income-producing property	Direct ownership	Continental U.S.	$1 million	Varies according to risk	Negotiable
Income-producing property	Units in commingled separate account (RESA)	National	$50,000	RESA — 14.90% (annualized time-weighted rate of return since inception on 6/30/81)	RESA: annual fee on net asset value of fund — 1.00% on first $1 million; .9% on next $1 million; .8% thereafter
100% income-producing property	Varies according to property	Continental U.S.	$2 million	11½-12½% minimum	Based upon net cash flow of the investment
PRISA & PRISA II — income-producing property, mortgages; PRIMOR & MORISA — mortgages	Contributions to PRISA, PRISA II, PRIMOR, MORISA	All accounts diversified nationally	PRISA — $150,000 per year; PRISA II — $1 million	PRISA — 14.1% (12 months ending 3/31/82); PRISA II — 13.3% (12 months ending 3/31/82); PRIMOR — 4.2% (12/31/81-3/31/82); MORISA — 4.2% (12/31/81-3/31/82)	PRISA & PRISA II — 1.00% of first $100 million; .75% of next $50 million; .50% of the excess; PRIMOR & MORISA — .75% of mortgage and construction loans; short-term investment charges extra
1st and 2nd deeds of trust	Full ownership	Northern California	$100,000	18%	None
Income-producing property	Units in open-end commingled fund	Southwest, Southeast	Must have capacity to grow to $1 million in 3 year period	Varies with specific investment mode and method of calculation, available upon request	Maximum of 1.2% of market value of fund
100% income-producing property	Equity ownership	National	$100,000	Varies	Varies depending on services
100% income-producing property	Units in closed-end commingled real estate equity funds	Metro areas with populations in excess of 1 million	USA series — $15 million; West & Mid-America series — $1 million	Not available	% of assets under management
100% income-producing property	Full or substantial ownership	Emphasis on greater Washington, DC, metro area	Generally $5 million	Varies	Varies

Name and address	Person to contact, phone	Total assets under real estate portfolio management (millions)	Number of pension fund real estate clients	Total pension fund real estate assets under portfolio management (millions)
SCUDDER REALTY ADVISORS 333 South Hope Street Los Angeles, CA 90071	Christopher B. Davis Vice President 213/628-1144	$500+	8	$500+
SMITH BARNEY REAL ESTATE CORP. 1345 Avenue of the Americas New York, NY 10105	Lewis W. Kresch First Vice President 212/399-6505	$300	60	$100
STATE STREET BANK & TRUST CO. Asset Management Division 225 Franklin Street Boston, MA 02110	Harry Sterling, Jr. Vice President Robert E. Kilroy Assistant Vice President 617/786-3236	$5 (7/23/82)[4]	1	$5 (7/23/82)[4]
SUHRCO REAL ESTATE ADVISORS 1818 Westlake Avenue North #408 Seattle, WA 98109	Edwin C. Suhrbier President 206/284-8907	$22	1	$14.5
SUN BANK, N.A. P.O. Box 3831 Orlando, FL 32802	Julian Rogers Vice President 305/237-5064	$35	65	$4.5
RALPH C. SUTRO CO. 4900 Wilshire Boulevard Los Angeles, CA 90010	S.Q. DellaGrotta Vice President 213/937-4000	$8,500	36	$342
THIRD NATIONAL BANK 201 Fourth Avenue North Nashville, TN 37244	Campbell Brown Vice President 615/748-4610	$70	77	$13.5
TRANSWORLD RESOURCES 1617 Second Avenue Walnut Creek, CA 94596	W. John Miller President 415/944-0963	$500	3	$200
THE TRAVELERS INSURANCE CO. One Tower Square Hartford, CT 06115	Thomas E. Keating Vice President 203/277-7777	$8,000+	$6,000+	Approx. $4,000
WACHOVIA BANK & TRUST CO., N.A. P.O. Box 3099 Winston-Salem, NC 27102	Nicholas L. Verano, III Vice President 919/748-5906	$337	287	$309
WELLS FARGO REALTY ADVISORS P.O. Box 30015 Terminal Annex Los Angeles, CA 90291	Peter Hitch Vice President 213/822-2032	$408	140	$147
YORK ASSOCIATES 4801 Massachusetts Avenue, Suite 300 Washington, DC 20016-2090	John C. York, Jr. President 202/362-1400	$65	6	$40

[4] Closed-end fund in conjunction with Aldrich, Eastman & Waltch expected to have closed by September 1 with approximately $100 million.

Breakdown of assets into real estate holdings	Participation offered	Geographical diversification	Minimum investment	Return on investment (net of fee)	Fee
Debt instruments with equity attributes in form of participation in increasing gross income and property appreciation	Varies	Sunbelt with emphasis on southern California	$2 million	17-19%	2% of investment at time of application
100% income-producing property	Units of participation in commingled fund	National	$250,000	20-25% per year	Asset management fee — 2% of first $25 million; 1.5% of next $35 million; 1% thereafter; also performance fee
Primarily commercial income-producing property (office, retail, industrial)	Units in closed-end commingled pool	National	$10 million in some combination with initial commitment in 3 equal installments	Not available (fund closed 9/82)	Management fee — .75% of net assets of fund per year
Income-producing property (shopping center, multi-family)	Direct investment	Northwest	$100,000	Varies	¾-1¼% depending on size
Convertible mortgage — 44%, shopping center — 22%, reserve — 34%	Units in open-end fund	Florida & Southeast	1 unit (approx. $1,100)	13.75%	.75% of net asset value of contribution
Income-producing property — $127 million; mortgages — $215 million	Equity and debt	National	$500,000	14-16%	Negotiated
Income-producing property — 97%, mortgages — 3%	Direct ownership, commingled real estate fund	National with emphasis on Sunbelt	$1,000	11.4% (12 months ending 6/30/82)	1% of unit value of commingled fund
100% income-producing property	Syndications with equity participation	National	$10 million	10% minimum (goal)	Acquisition and disposition fee — 2%; negotiated management fee
Separate Account R (S.A.R) — income-producing property (office, industrial, shopping centers, apartments), agricultural	S.A.R — equity, debt and balanced participation; Separate Account T (S.A.T) and ASA (S.A. ASA) — equity ownership	S.A.R — diversified nationally; S.A. ASA — diversified in all regions except East	S.A.R. — $100,000; S.A.T and S.A. ASA — $1 million	S.A.R. equity — 19.67%, mortgages — 10.83%, balanced — 16.55% (all figures 12 months ending 12/31/81); S.A. ASA 5.79% (12 months ending 3/31/82); S.A.T established 3/31/82	S.A.R — 1% annual investment management fee based on net assets; S.A.T — 1.25% annual investment management fee; S.A. ASA — 1.25% annual investment management fee
Income-producing property — 87.9%, mortgages — 1.0%, cash/temporary investments — 9.2%, real estate securities — 1.9%	Units in open-end commingled fund; individual accounts available	National with emphasis on major metro areas	$100,000	25.2% (3/31/82)	1.125% of total market value of investment in real estate; .25% annually of investment in mortgages, sale/leasebacks, cash
Income-producing property	Units in commingled fund, separate accounts	West, Sunbelt	$500,000	15.5% (1981)	1.25% of net real estate assets; 0.5% of short-term securities
100% income-producing property	Equity ownership	National	$5 million	16% internal rate of return	Incentive fee

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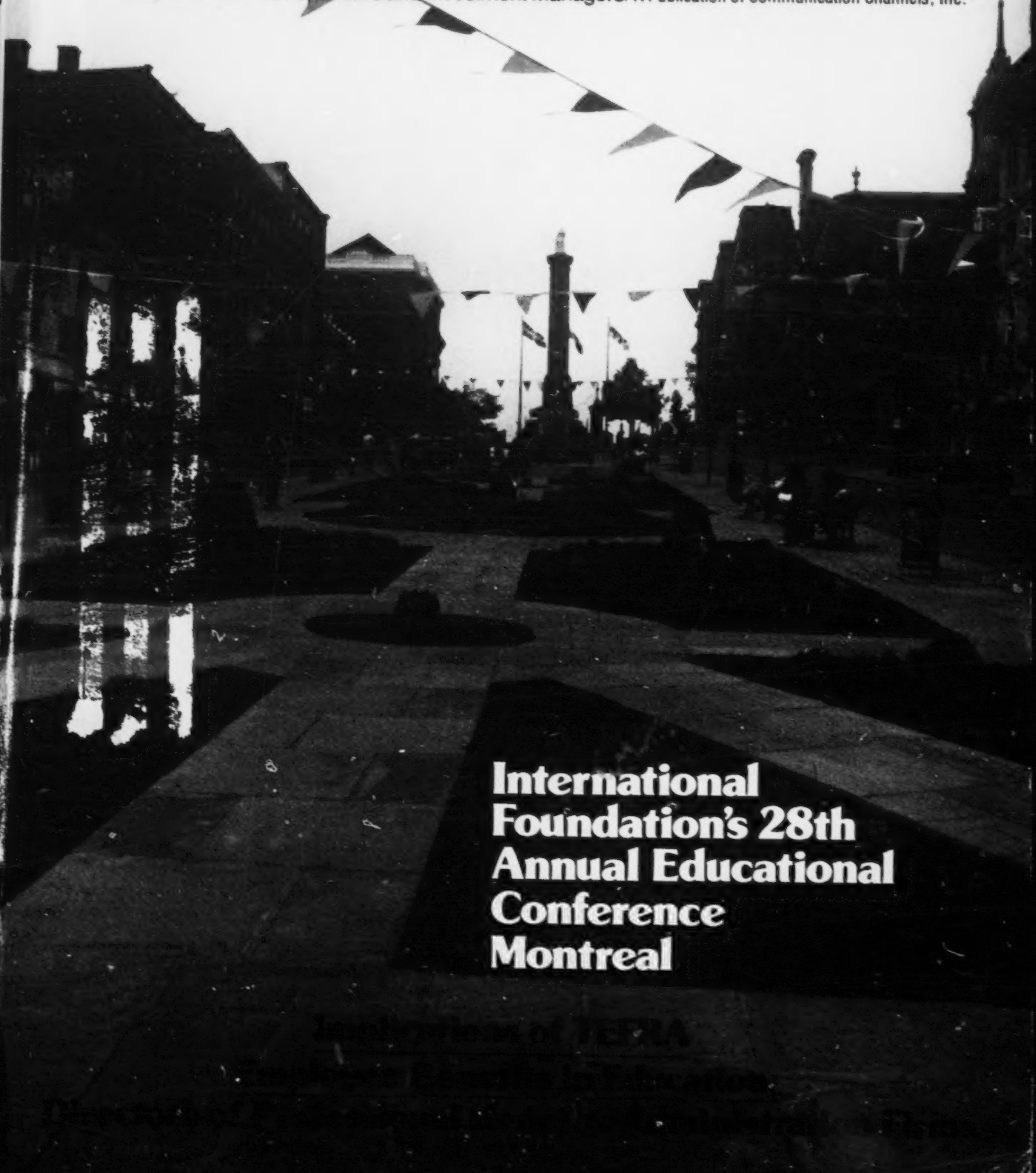

International Foundation's 28th Annual Educational Conference Montreal

Implications of TEFRA

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Pension World

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International Foundation of Employee Benefit Plans: Staying in the mainstream of employee benefits by Wesley G. Jeltema **15**
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Original issue deep discount bonds have experienced a surge in popularity of late. This certified public accountant discusses the advantages and disadvantages — both to the issuer and the investor — of DDB's.

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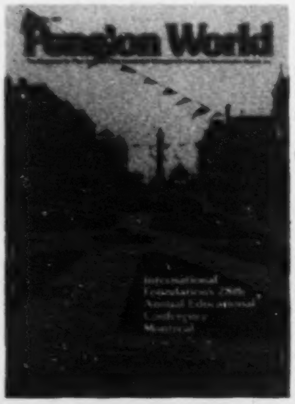

***Cover:* The accomplishments of the International Foundation of Employee Benefit Plans are as striking as the flora in Montreal, Canada, site of the 28th Annual Conference. President Jeltema's observations begin on page 15.**

Cover photo by Bill Coker.

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Employee benefits in education

Workers in various professions view their pension plans with differing levels of emphasis. To some, a pension is a fringe benefit; to others, it is an integral part of the total compensation package. According to the National Education Association (NEA), a Washington, D.C.-based organization representing over 1.7 million members who work in public education, "in the eyes of teachers, a retirement plan is deferred payment for services rendered—a condition of employment—no more, no less."

A number of legislative changes have occurred in the past few years in employee benefits in education, though many educators would probably agree that there is still a long way to go. According to a statement by NEA during Senate subcommittee hearings on S. 2105 and S. 2106, almost one-fifth of U.S. teachers have lost retirement credits at some point during their careers. In addition, a lack of standardization of pension terminology and lack of minimum disclosure

Table I Legislative Changes

System	Benefit Formula	No-Member Contribution	Soc. Sec. Integration	Survivor Benefit	Death Benefit	Disability Benefit	Ad Hoc C.O.L.A.	Board Make-up
Alabama							X	
Alaska							X	
Arizona	X						X	X
Arkansas	X						X	
Calif.							X	
Colorado				X		X	X	
Conn.				X	X	X	X	X
Delaware							X	
D.C.				X		X		
Florida	X	X		X		X		
Georgia	X							
Hawaii							X	
Idaho						X	X	
Illinois							X	
Indiana							X	
Iowa	X						X	
Kansas	X				X	X	X	
Kentucky				X	X	X	X	
Louisiana				X	X	X	X	
Maine		X		X			X	
Maryland								
Mass.								
Michigan				X	X	X	X	
Minnesota							X	X
Miss.	X			X		X	X	X
Missouri	X							
Montana							X	X
Nebraska	X							
Nevada	X			X	X		X	
New Hamp.	X			X			X	X
New Jrsy.							X	
New Mex.							X	
New York							X	
N. Carolina	X			X	X		X	
N. Dakota				X				
Ohio							X	
Oklahoma	X			X	X		X	
Oregon	X						X	
Penn.							X	
Rh. Island								
S. Carolina				X		X	X	
S. Dakota	X					X		X
Tenn.		X			X		X	
Texas	X			X	X		X	
Utah			X				X	
Vermont								
Virginia								
Wash.							X	
W. Virginia				X			X	X
Wisc.								
Wyoming		X					X	

Source: 1981 NEA Teacher Retirement Provision Survey

Table II Normal Retirement Requirements and Benefit Formula

	Age — Service Combinations								
System	Age	Service	Age	Service	Age	Service	Normal Formula	Limit %FAS	Special Provisions
Alabama	60	10	99	30			X	2.01	
Alaska	55	8					X	2.00	
Arizona	65	5	60	25	62	10	X	2.00	Prior service benefits for service before employer covered.
Arkansas	60	10	55	35			X	1.40	$6600 + 1.8 x yrs. bef. 69 + 1.8 x yrs. 69-77 + 1.59 x yr.
Calif.	60	5					X	2.00	
Colorado	55	30	60	20	65	5			FAS x yrs. of ser. x 2.5% 1-20; yrs. x 1.0% yrs. 21-40.
Conn.	60	20		35			X	2.00	To early vested proratable disability retirements.
Delaware	99	30	60	15	62	10	X	1.60	
D.C.	55	30	60	20	62	5	X	1.50	1.5 — 1st 5 yrs.; 1.75 — 2nd 5 yrs.; 2.0% all service over 10 yrs.
Florida	62	10	99	30			X	1.60	Prev. state credit earned RCD.
Georgia	99	30	62	10			X	1.92	Min. yrs. serv. x $12; Max 40 Yrs. srv.
Hawaii	55	5	99	25	70	5	X	2.00	
Idaho	65	5					X	1.67	
Illinois	60	10	62	5			X	1.67	1.67 10 yrs. 1.9 10 yrs. 2.1 for 10 yrs. 2.3 over 30.
Indiana	65	10	50	15			X	1.10	Early retirement & option factors applied if applicable.
Iowa	65	1						0.46	50% FAS based on 3 yrs. srv., $20,000 max.
Kansas	65	1					X	1.25	FAS x.01 x Yrs. Prior service (.0075 some case).
Kentucky	60	5					X	2.00	Basic formula: Yrs. after 1941 only; before 1941 $88/ year.
Louisiana		20	55	25	99	30	X	2.50	FAS x yrs. srv. x 2.00% for yrs. prior 1900.
Maine	60	99					X	2.00	
Maryland	60	1	99	30			X	1.81	
Mass.	55	99	99	20			X	2.50	Varies — 1.5% at age 55 to max of 2.5% at age 65 and over.
Michigan	60	10	55	30			X	1.50	
Minnesota	65	10	62	30					1% for 1st 10 Yrs.; 1.5% subseqt. yrs.
Miss.	99	30	60	10	65	10	X	1.63	X
Missouri	99	25	99	30	60	5	X	2.00	If 60 in 1975 1.5% + .60 x yrs. serv. + ¼% ea. mo. 60 to age 65.
Montana	60	5	99	30			X	1.67	
Nebraska	65	5					X	1.25	Years of service are after 1968.
Nevada	60	10	55	30			X	2.50	
New Hamp.	60	99					X	1.68	
New Jrsy.	60	1					X	1.67	Years of service over 60 x FAS.
New Mex.	65	5	60	15	99	35	X	2.00	FAS x yrs. srv. x 1.50% for yrs. prior 1957.
New York[1]	55	20	55	2					
N. Carolina	65		99	30			X	1.57	
N. Dakota	65	10	60	35			X	1.00	
Ohio	65	5	99	30			X	2.00	Money purchase.
Oklahoma	60	10	55	30			X	2.00	
Oregon	60	99	58	99			X	1.00	Variable annuity.
Penn.	62	1	60	30	99	35	X	2.00	
Rh. Islnd.	60	10	55	30	99	35	X	1.70	1.7% 1st 10 Yrs.; 1.9% 2nd 10 yrs.; 2.4% remainder.
S. Carolina	99	30	65	99					1st 4800 AFC x 1.25% x yrs. srv. + AFC>4800 x 1.65% x yrs. srv.
S. Dakota	65	5					X	1.00	
Tenn.	60	30	99	30					1.5% 1st 10,800 + 1.75% bal. FAS x srvce.
Texas	65	10	60	20			X	2.00	Full ben. avail. if age + service = 95.
Utah	60	20	62	10	65	4	X	2.00	Before 7/67 1.10%; 7/67-6/75 1.25%; After 7/75 2.00%.
Vermont	60	99		30			X	1.67	
Virginia	65	99					X	1.50	Alternate formula: FAS-$1200 x yrs. serv. x 1.65%.
Wash.	60	5	55	25	99	30	X	2.00	Maximum of 30 years credit.
W. Virginia	99	35	55	30	60	5	X	2.00	
Wisc.	65	99					X	1.30	Money purchase if more than formula.
Wyoming	50	4	99	25			X	2.00	2% is after 7/1/75; money purchase before 7/1/75.

[1] Not included in data

Source: 1981 NEA Teacher Retirement Provision Survey

standards of public pension provisions have made the establishment of equivalency between teacher retirement systems difficult.

Access to funds contributed to their accounts continues to be a priority for many teachers. Benefits in 24 states are guaranteed by state statutes, and only eight states have a constitutional guarantee of benefits (Alaska, Hawaii, Illinois, Maryland, Michigan, New York, North Carolina, and Washington).

Despite these industry problems, how do educators fare in their specific employee benefits programs? In 1979 and again in 1981, NEA conducted a comprehensive Teacher Retirement Provision Survey to obtain uniform data on employee benefits in education across the U.S. The following information is extracted from the 1981 survey results, which are condensed in 56 tables that allow comparison of provisions among the states. All the information reflects the most recent data provided to NEA by the retirement system administrators in the 50 states plus the District of Columbia.

Table I shows in what states significant legislation was enacted in each state in the 1979-80 period. Data shown in the table indicate changes in the benefit formula, non-contributory status, integration with Social Security, survivor benefits, death benefits, disability benefits, *ad hoc* cost of living adjustments, and the makeup of the board of trustees.

Pension provisions

The majority of education systems have 10-year vesting schedules for pension benefits at any age, with Alaska requiring 20 years at any age and Wyoming requiring only four. Ten states will pay deferred allowances to vested members at ages 50, 55, or 60 with a certain number of years of service.

To arrive at final average salary,

Table III Programs and Services[1]

System	TSA	Salary Deferral	Life Insurance	Health Care	Publications	Newsletters	Annual Statements	Field Counseling	Electronic Funds Transfer
Alabama						40,000	99,999	701	
Alaska			X	X	X	X	X	X	
Arizona					X		X	X	
Arkansas				X	31,300	8,215		31,300	
Calif.	1,277					X	99,999	4,652	
Colorado			28,700		99,999		99,999	X	
Conn.				8,069			47,818	X	
Delaware				X			X		
D.C.	1,994								
Florida					X	X	X		
Georgia				X	X		X	X	
Hawaii			55,638	43,616			44,500	X	
Idaho				1,150			40,000	X	
Illinois						X	X	X	
Indiana						X	67,000		2,450
Iowa					X		190,000		
Kansas			X			99,999	99,999	99,999	
Kentucky	625			12,000	63,000	63,000	48,000	10,000	
Louisiana			1,000				72,000	10,000	
Maine			33,000			2,000			2,800
Maryland	88					1,000	79,013	5	
Mass.								X	
Michigan				40,003	X		X	X	
Minnesota					X	X	X	X	
Miss.		4,607		1,900					
Missouri	100				X	60,000	3,000	X	
Montana	X						X	X	
Nebraska					32,493		24,948		
Nevada					X	X	X	X	600
New Hamp.							34,000	X	
New Jrsy.	X		X	X			X	X	
New Mex.					X		X	X	
New York					X	X	X	X	X
N. Carolina				99,999	99,999		99,999	X	9,000
N. Dakota							10,282		
Ohio	X			X	X	X	X	X	X
Oklahoma	X								
Oregon				35,029	40,645	40,645	40,645	40 645	35,029
Penn.				22,077	99,999	99,999	99,999	99,999	
Rh. Islnd.				X	X		X		
S. Carolina		X	X		X	X	X	X	
S. Dakota			4,000	11,000		30,000	30,000	X	
Tenn.					99,999	99,999	99,999	20,000	
Texas					X	X	X	X	X
Utah		X		X		X	X	X	X
Vermont				1,000		10,100	8,146	8,146	
Virginia		X	X		X	X	X	X	X
Wash.							X	X	
W. Virginia	39		46,046	46,046					
Wisc.	1,500				X		X	X	
Wyoming			2,082						

[1] The figure 99,999, where shown, represents entire membership.

Source: 1981 NEA Teacher Retirement Provision Survey

24 systems use an average of the highest consecutive years, ranging from two years in Georgia and Washington to three years in nine other states, four years in Illinois and North Carolina, and five years in another 11 states. Twenty-one states use the highest number of nonconsecutive years, with 13 using the highest three years and eight using the highest five. The remaining states have other provisions for arriving at this figure.

Table II shows the normal retirement age and service requirement options in each state. Also shown is the percentage factor used to calculate final average salary, plus any special provisions that apply.

Every state provides an early retirement provision. Most of these require some combination of age and service, with some requiring actuarial reductions based on age at retirement or percent per month reduction for each month under normal retirement age. Thirteen states provide for full benefits at a specified age if the retiree has 25 or 30 years of service.

California, Hawaii, Illinois, Kentucky, and Louisiana have flat or fixed percentages of salary that are added to the base benefit each year as automatic post-retirement adjustments, independent of any other condition. The District of Columbia and Maryland apply automatic post-retirement adjustments equal to the increase in the Consumer Price Index (CPI), while 16 additional states apply a flat or fixed percentage to the base benefit if the CPI increases at an amount equal to or greater than the flat or fixed percent adjustment. Eleven other states provide automatic post-retirement adjustments through some other formula.

How death and survivor benefits are determined among the 50 states is almost as varied as it is complex. In some states, death benefits fluctuate according to whether a service (time) requirement must be filled before they will be paid and whether the cause of death is work-related or accidental. Benefits generally are paid in lump sum only, monthly payment only, lump sum and/or monthly payment at option of survivor, or lump sum and/or monthly payment at option of member. Some of the payment options available to covered employees include a fixed amount; an amount equal to total member contributions, plus interest; an amount equal to 12 months salary not to exceed $20,000; or an amount equal to member contributions, interest, and employer contributions.

More conditions are placed on survivor benefits, which can be af-

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though the original discount is usually amortized on a straight-line basis for income tax reporting, generally accepted accounting principles require the use of the effective interest method for financial reporting. Thus, charges to the income statement are smaller in early years. The balance sheet, however, is more highly leveraged when DDB's are used than when conventional bonds are used. At the time of issue, the liability is equal to the proceeds, but as the original discount is amortized, the recorded liability increases. At maturity, then, the liability includes deferred interest as well as the proceeds. In contrast, the recorded liability related to a conventional issue is equal to the proceeds only.

Advantages to investor

What type investors are attracted to DDB's? For a tax-exempt organization, DDB's might be a good investment for a number of reasons. First, and especially important to pension funds that rely on matching cash inflows and outflows, investors are protected against an early call by the issuer. Since the bonds are callable only at par, the issuer would realize no interest savings with an early redemption. Therefore, the risk to the investor of having to reinvest at a lower future interest rate is virtually eliminated.

Second, DDB's may provide a favorable guaranteed reinvestment return. Since the investor receives some or all of his interest at maturity (and thus less annually), less of his total return is subject to the risk of being reinvested at lower interest rates in the future. This guaranteed reinvestment return feature can also be disadvantageous if interest rates rise.

Third, DDB's have greater price appreciation potential than current coupon bonds. Assuming equal dollar amounts invested, DDB's are more volatile since relatively more of their investment return remains outstanding for the stated maturity of the bonds. Thus, relatively more of the total investment is subject to changes in interest rates. This feature is unattractive when interest rates are expected to rise.

Disadvantages to investor

Of course, DDB's also have some negative aspects from the buyer's perspective. The Internal Revenue Service requires even cash-basis investors to amortize the original discount of most corporate bonds annually into taxable income. This results in a very unfavorable tax situation for a taxpaying investor and is the reason original issue DDB's are purchased almost exclusively by tax-exempt organizations. In addition, deep discount bonds inherently yield a lower cash flow and generally carry a lower implicit interest rate than comparable conventional bonds.

Summary

Since DDB's offer some definite advantages to tax-exempt investors, is it safe to assume that the market will be flooded with this type security? Certainly the market for DDB's is potentially huge since tax-exempt organizations (mainly pension plans) purchase approximately 80 percent of corporate debt securities. A major controlling factor on the number of DDB issues will be investor faith. How many companies would you be willing to trust to hold 10 or 15 years of a portion of your interest payments, as well as your principal?

A broker should be able to help decide which companies are worthy of this trust. However, when consulting a broker about DDB's, keep one thought in mind: Some brokers are very eager to sell DDB's. Due to the large discount, the same number of dollars will buy a greater number of deep discount bonds than current coupon bonds. Because commissions are based on the bond's face value, brokers can earn two or three times more selling DDB's.

Original issue deep discount bonds are a welcome addition in the securities market. Although they generally do not appeal to individual investors or other taxpaying entities, DDB's are, for many tax-exempt organizations, an excellent investment opportunity. ☐

Public Employee Plans: Benefits in education

(Continued from page 23)

fected by the amount of service a member must have to qualify, the cause of death, and a predetermined choice between death and survivor benefits.

Every state system provides for permanent disability payment for members after a certain number years of service or below a certain age with a specified number of years of service.

Financing and investments

The vast majority of systems (38) require members to contribute a certain percentage of all earned income from public employment toward retirement benefits. This amount ranges from a low of 3.0 percent in Indiana to a high of 9.5 percent in Missouri, with an average contribution of 6.23 percent. Only Florida, Michigan, New York, Tennessee, and Wyoming do not require members to contribute.

In 23 systems, employer contributions are paid by the state, in 11 they are paid by the local school district, and in 14 they are shared between the two. The amount of contribution varies widely from state to state; it can match the member contribution, be set as a fixed percentage of payroll, be a lump sum, be actuarially determined, or another method. Five states are funded by the pay-as-you-go system, one through terminal funding, three through attained age normal with amortization, three through aggregate, two through individual level premium funding, two through entry age normal interest only, and 34 through entry age normal with amortization.

In its section on investments, NEA surveyed state education systems on such informaton as their statutory limitations on investments, holdings of the systems, the number of different stocks and bonds in the portfolio, the individual responsible for investing the funds, and the investment counsel firm used, if any. Much of this information was also compiled by *Pension World* and is available in the Ninth Annual Survey of State Retirement Systems (August 1982, p. 35).

Table III shows that programs are available in other categories, as well, in many states. These include tax-sheltered annuities, salary deferral plans, life insurance, health care plans, publications, newsletters, annual account statements, field counseling, and electronic funds transfer. Figures shown in the columns represent the number of participants in these programs as reported by the state systems. ☐

Tax Equity and Fiscal Responsibility Act

New tax law mandates pension plan changes

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Nearly buried in the multifaceted tax law that squeaked through Congress this summer are provisions that will force amendment of virtually every pension plan in the country. Savings plans and other benefit programs are also affected. All employers will have to cope with new administrative problems. Benefits for the high-paid are especially hard hit.

The Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA), a broad-ranging revenue raiser, incorporated many aspects of a pension-focused House bill, which was strenuously fought by the pension industry. Fortunately, some of the worst provisions of the original House bill were killed in the process. But enough of the ill-conceived House bill remained alive to cause major problems for pension sponsors and many of their employees.

The most far-reaching of the changes wrought by TEFRA are reduced maximum pension plan benefits, restrictions on loans, and the establishment of greater equality between corporate plans and H.R. 10, or Keogh, plans. Cash-or-deferred annuities (CODA's), which can offer tax advantages to employees, are subject to reduced limits. Maximum early retirement benefits have been slashed. An assortment of less-sweeping restrictions adds to the problems.

Although these provisions are designed to scale back benefits for the highly paid, they will also have an unintended impact on many individuals in the medium-pay brackets, particularly those who retire early. The changes may also reduce employer contributions to defined benefit plans. In the case of some smaller plans, cuts could be substantial. Every employer must now re-examine existing defined benefit and defined contribution plans to ensure that they meet the requirements of the new law and still achieve the goals of the company.

Table I Defined Benefit and Defined Contribution Plan Maximum Comparisons

	Defined Benefit Plans Maximum Annual Benefit	Defined Contribution Plans Maximum Annual Addition
1975	$ 75,000	$25,000
1976	80,475	26,825
1977	84,525	28,175
1978	90,150	30,050
1979	98,100	32,700
1980	110,625	36,875
1981	124,500	41,500
1982	136,425	45,475
1983	90,000	30,000
1984	90,000	30,000
1985	90,000	30,000
1986 and after	90,000 + increase to adjust for inflation	30,000 + increase to adjust for inflation

This article analyzes the changes made by TEFRA and their implications for pension plans and other benefit programs.

Reduced maximum benefits

Under a qualified defined benefit pension plan, the maximum permissible annual pension has been reduced 34 percent from the current $136,425 to $90,000 in 1983, 1984, and 1985 (or 100 percent of compensation, if less). Thereafter, the maximum will increase by the same index in use at that time for Social Security benefits.

Correspondingly, for a defined contribution plan, the maximum annual addition will be the lower of 25 percent of compensation or $30,000 in 1983, 1984, and 1985, compared with the current maximum of $45,475. The maximum will increase thereafter based on a Social Security index.

To see the maximums in perspective, Table I shows how they compare for the years 1975 through 1985.

Currently, Social Security benefits are increased by the ratio of the Consumer Price Index (CPI-W) for the first quarter to the first quarter figure of the previous year. However, Congress will probably change this formula within the next few years. Most likely is the use of a wage index.

Maximum early-retirement benefits slashed. Beginning in 1984, the $90,000 maximum benefit under a defined benefit plan will be actuarially reduced for people who retire before age 62. However, the reduction will not bring the benefit below $75,000 for employees 55 or older. The maximum is now actuarially reduced only for people who retire before age 55. The interest rate used in determining the reduced maximum benefit must be at least 5 percent.

The law also permits but does not require employers to increase actuarially the $90,000 limit for individuals who work beyond age 65. In making this calculation, the interest rate used cannot be greater than 5 percent.

Transitional rules. Under the law's transitional rules, benefits already accrued by participants will not be affected by the reductions, except as noted below in the discussion of the new 1.25 and actuarial decrease rules.

A participant's current accrued benefit under a defined benefit plan would be determined as of the end of the last plan year beginning before 1983. In determining the accrued benefit, no change in the plan's terms and conditions after July 1, 1982, will be taken into account. If a participant's current accrued benefit exceeds the new maximum, the accrued benefit will be considered the participant's maximum benefit. No additional accruals will be permitted until the cost-of-living-adjusted $90,000 limit exceeds the participant's accrued benefit.

An important note of caution here: The law gives employers until 1984 to amend existing plans. But employers should be careful about waiting because they may risk lawsuits by employees entitled under existing plans to benefits in excess of the new limits. If the plan is not amended *before* an employee becomes entitled to the higher benefit, the employee would be justified in demanding the higher benefit even though paying it would jeopardize the plan's qualified status. This potential problem can be solved by amending the plan before the end of 1982 and communicating the change to affected employees.

Funding. Employers are required to continue to fund an individual's current accrued benefit. However, no further accruals in excess of the new maximum limit, as adjusted for cost-of-living increases, will be permitted.

In addition, the new law makes it clear that anticipated cost-of-living adjustments to the overall benefit limits may not be taken into account in determining the allowable deduction for employer contributions to pension plans.

The 1.25 rule: aggregate limit cut. Another significant change is a reduction of the aggregate limit on benefits provided by an employer with both a defined benefit and a defined contribution plan. Dollar limitations on combined plans have been reduced from 140 percent of the allowable limits to 125 percent. In situations where the percentage limitation results in lower limits than the dollar amounts, the maximum will be 140 percent of the allowable limits. The percentage limits provide that the maximum annual addition to a defined contribution plan fraction cannot exceed 25 percent of compensation, and the maximum benefit under a defined benefit plan cannot exceed 100 percent of compensation. This approach generally preserves the 1.4 limit for the lower-paid, while imposing a 1.25 limit on the higher-paid.

This could have a far-reaching impact on maximum benefits, particularly if the employer offers a very good savings plan and/or cash-or-deferred annuity (CODA), together with a defined benefit plan. Consider, for example, a savings plan with a CODA with the following employer contributions:

3% in CODA deferrals
2% in profit-sharing contribution
3% in matching contributions

8% Total

This 8 percent annual addition represents 32 percent of the maximum allowable contribution of 25 percent of pay (ignoring the fixed-dollar maximum). Under the current rules, annual additions of less than 40 percent of the maximum have no effect on the maximum retirement plan benefit, since a total benefit of up to 140 percent of the combined maximums is permitted.

Under the new rules, this will generally continue to be the case for employees earning less than $107,142. (This is because 25% x 140/125 x $107,142 = $30,000.)

However, for an employee earning $120,000, the maximum dollar limits apply, and consequently 125% − 32% = 93%. Thus, if the defined contribution plan is to be retained as is, then the maximum benefit under the defined benefit plan would be $83,700 (93 percent of $90,000) at age 65 and would be about $70,000 at age 55, but the benefit would be $75,000 because TEFRA provides a $75,000 minimum. Also, if the benefit accrued through 1982 exceeds the new limit, no reduction was intended by TEFRA, but the language of the law is not clear on this point.

Transitional rules. Under the law's transitional rules, a participant's overall limit, based on accruals to date, can exceed 1.25 as long as it does not exceed 1.4. However, until the 1.25 test is satisfied, no further accruals will be permitted under the defined benefit plan and no additions, other than investment income and deductible employee contributions, can be made to the participant's defined contribution account(s).

Top-heavy rule. TEFRA establishes new rules for what it calls "top-heavy" plans, which could be either defined benefit or defined contribution plans. The plan is considered top-heavy if 60 percent or more of the present value of the accrued benefits go to key employees. This group is composed of:

—owners of 1 percent or more of the employer company who earn over $150,000 (not subject to indexing);

—owners of 5 percent or more without regard to compensation;

—officers of the employer (at least three but not over 50);

—any employees who own one of the 10 largest interests in the employer company.

If a plan is top-heavy, the maximum compensation that can be taken into account for setting pension benefits and contributions is $200,000, which will be indexed. Also, the plan must have accelerated vesting. There must be at least either three-year full vesting or graded vesting. If graded vesting, it must be at least as favorable to the employee as the following:

—One year of participation—0 percent vested;

—Two years of participation—20 percent vested;

—Three years of participation—40 percent vested;

—Four years of participation—60 percent vested;

—Five years of participation—80 percent vested;

—Six years of participation—100 percent vested.

In addition, if the top-heavy plan is a defined benefit plan integrated with Social Security, the benefit for employees, other than key employees, must be at least 2 percent of pay per year of service, up to a maximum of 20 percent. For a top-heavy defined contribution plan, the employer contribution for employees other than key employees must equal at least 3 percent of pay.

There are special transitional rules phasing in these new provisions on top-heavy plans. Generally, these new rules become effective in 1984.

Even for plans in which the top-heavy rules are unlikely to ever apply, there will probably be a tendency for the IRS to require that language be incorporated into the plan document to assure compliance. This could result in some extensive and, from a practical point of view, silly plan amendments.

Integration of defined contribution plans. The maximum percentage that can be used in integrating defined contribution plans with Social Security is reduced from 7 percent to 5.4 percent, effective in 1984. Although Congress did consider changing the integration for defined benefit plans, it did not do so in TEFRA.

How Keogh plans are affected

One of the apparent purposes of the new law is to make Keogh plans for self-employed professionals more attractive. This is accomplished by achieving parity between the corporate and Keogh plan maximums. Beginning in 1984, Keogh plans are generally subject to the same rules as corporate plans. However, employers now using Keogh plans are more likely than other employers to be subject to the new top-heavy rules.

Impact of changes

The impact of these changes mandated by TEFRA will be substantial for many employers.

Funding. The new defined benefit and defined contribution maximums and the 1.25 rule will affect funding for some employers, particularly those with both defined contribution and final pay defined benefit pension plans. Not only are the limits lower, but the law also adopts the IRS position that a qualified pension plan should not take into account projected increases in benefits above the current maximum when determining contributions. Thus, there could be a reduction in 1983 contributions to defined benefit plans because of the sharp drop in the 1983 maximum.

A second problem is that the annual valuation process will become more complicated. Thus, it will be more expensive for employers whose combined defined benefit/defined contribution maximum is affected by the drop in the 1.4 factor to 1.25. Annual additions under defined contribution plans will have to be taken into account in the pension plan valuation. In many cases, this will increase the census data required for the actuarial valuations.

> *As part of an overall effort to increase compliance with Federal tax laws and thus increase Federal revenue, the new law requires that income tax be withheld from all taxable pensions and annuities including lump sum distributions — unless the recipient elects out.*

The funding impact will vary by employer, depending on a number of factors. Some employers may want to use long-range funding projections to help determine the best course of action. Employers should also consider the effects of the new laws on their existing plan design.

IRS qualification. Most retirement plan documents will need to be amended as a result of these changes and submitted to the IRS for a determination letter. Since, generally, the provisions of the law are effective for plan years beginning after December 31, 1982, plans with a calendar year plan year could normally wait to make the necessary changes until they file their 1983 tax returns (September 15, 1984, assuming extensions). However, TEFRA permits amendment of plan documents to be delayed until the plan year beginning in 1984. Thus a calendar year plan could delay amendment until September 15, 1985, assuming a tax filing for 1984 on that day.

Design changes. Plan design should now be examined to resolve possible replacement ratio and funding problems caused by the new maximum limits and to make any other desired changes. Particularly close attention should be given to combinations of defined benefit and generous defined contribution plans because they often will have problems meeting the 1.25 rule.

Supplemental executive retirement plans. In certain companies, there may be many employees whose pensions are reduced as a result of TEFRA. Employers will have to decide whether these employees should be covered by an existing excess benefit or supplemental plan or a new one. It may be necessary to redesign existing supplemental plans because of the additional employees covered.

Covering additional employees would represent a shift from tax-deductible contributions to deferred tax-deductible payments under a non-qualified plan. A material increase in liabilities under a supplemental plan could lead to concern about their handling and about showing increasing unfunded liabilities on corporate financial statements. To solve these problems, the liabilities could be funded in several ways, including corporate-owned life insurance or corporate bank accounts.

New rules for employee loans

The new law permits tax-free loans up to $10,000 for a five-year period under all qualified plans or tax-sheltered annuities and requires these plans to report loan information to the IRS. Loans for a five-year period for amounts in excess of $10,000 are permitted on a tax-free basis, provided the total amount of the loan does not exceed half of the employee's vested benefit up to $50,000. Amounts over these limits will be treated as distributions and subject to tax. Unlike the other provisions of TEFRA, which become effective in 1983, this provision is retroactively effective for loans made after August 13, 1982.

If the loan is made in connection with the principal residence of the employee or a member of the employee's family, repayment must be over a "reasonable" period, which may exceed five years. For this purpose, the employee's family includes the spouse, full or half brothers or sisters, ancestors, and lineal descendants.

The portion of all loans in excess of these limits must be treated as a distribution to the individual taking the loans. This excess would be taxable up to the amount of the loan transaction, to the extent it exceeds the amount of the individual's nondeductible contributions, if any. For example, an employee who has vested benefits in excess of $100,000 and has made $15,000 in nondeductible contributions to a plan, and who has not previously made a withdrawal, could have a five-year loan of up to $65,000 and not have to pay any tax. However, if a loan of $70,000 is made to that individual, $5,000 would be taxable.

Prepayments of loans that were deemed to be distributions will be treated as nondeductible contributions to avoid potential double taxation (at the time of the loan and again when the repaid amount is distributed).

Pension withholding

As part of an overall effort to increase compliance with Federal tax laws and thus increase Federal revenue, the new law requires that income tax be withheld from all taxable pensions and annuities including lump sum distributions—unless the recipient elects out. Notice of the withholding rules and election rights will have to be provided to participants. After participants have made their elections, they must still be given annual notices of the right to change their elections, but further elections are not required.

This provision, which is effective January 1, 1983, will significantly increase administrative costs of plans. It will require plan administrators to calculate the withholding, keep track of who has elected out, and make additional reports to the IRS.

Other changes

The new law also makes many other benefit-related changes to raise Federal revenue and decrease expenses. These include:

Group term life insurance. Beginning in 1984, employer-provided group term life insurance programs may not discriminate in favor of high-paid employees or officers. If they do discriminate, the life insurance coverage is considered taxable income to the employee. If the insurance programs do not discriminate, coverage up to $50,000 continues to be tax-free. Presumably, salary-related life insurance programs that provide benefits on the same basis for all covered employees will generally be considered nondiscriminatory. The IRS will probably provide some guidance about this and about any special procedure for getting IRS determinations of whether a particular life insurance plan would be considered discriminatory.

Medicare changes. TEFRA shifts Medicare costs to the private sector for active employees age 65 through 69, as well as for their dependents. Medicare becomes the secondary payor and the employer's health plan the primary payor. Together with new restrictions on reimbursing hospital and related health care charges, this shift of primary coverage places a greater cost burden on the employer. The new law also mandates Medicare coverage for Federal employees. Thus, beginning in 1983, these employees and the Federal government will pay Medicare taxes.

Medical and casualty deduction. The nondeductible floor for medical expenses was raised from 3 percent to 5 percent of adjusted gross income. The separate deduction of $150 for health insurance premiums without regard to the floor was eliminated. The additional floor for drugs was eliminated starting in 1984, but only prescription drugs and insulin will be deductible.

Casualty losses will be deductible only to the extent they exceed 10 percent of adjusted gross income vs. the $100 floor now in effect. Casualty losses smaller than $100 continue to be nondeductible.

Federal Unemployment Tax Act (FUTA) changes. Effective in 1983, the Federal unemployment tax base will increase to $7,000 from $6,000 and the tax rate will increase to 3.5 percent from 3.4 percent. In 1985, the Federal tax rate will be increased to 6.2 percent (a permanent tax of 6.0 percent and an extended benefit tax of 0.2 percent), and the credit that employers receive against the tax will be increased to 5.4 percent.

Annuity contracts. The taxation of annuity contracts will be modified beginning in 1983. Withdrawals will be taxable to the extent income from investment has been earned. The new law also has a rule for treating loans as distributions, as well as a 10 percent penalty for withdrawals before age 59½, or 10 years from the time of contribution, whichever period is shorter.

Universal life insurance. Guidelines are set for the proceeds from universal life insurance to be eligible for the income tax death benefit exclusion.

Disabled employees. An employer may provide additional contributions to a defined contribution plan on behalf of disabled employees (other than officers, shareholders, and highly compensated individuals), based on their pre-disability compensation. These additional contributions are permitted, provided that the covered employees are immediately vested in their accrued benefit derived from these contributions.

The ramifications of TEFRA

The Tax Equity and Fiscal Responsibility Act of 1982 rivals ERTA in its impact on employee benefits. TEFRA is likely to cause reductions in contributions and increases in administrative costs. The use of CODA's is likely to continue increasing substantially, together with defined contribution plans. Virtually all defined benefit and defined contribution plans will need revision. In addition to pension plans, medical and group life insurance benefits are affected.

As an immediate response to the new law, employers will want to study their pension plans very carefully. In some situations, it will be advisable to redesign and revise without delay. Other changes can wait. When making the changes required by TEFRA, it may be advantageous to address other matters. For example, to comply with IRS regulations, actuarial factors used to determine benefits could be specified in the plan.

In short, this is a propitious time for plan sponsors to examine the pension forest, as well as the trees. Rather than simply pruning a limb here and there, it would be wise to review the entire pension plan, not only to comply with relevant rules, but also to ensure its design still meets overall company objectives with maximum cost-effectiveness. □